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ABSTRACT

The first five experimental hour-long versions of "Sesame Street," a children's educational television program, were field tested during the summer of 1969. To provide formative information on the effectiveness of the show and to test the effectiveness of the evaluation instrument, small samples of disadvantaged and middle class four-year olds from New York City and Philadelphia were asked to view "Sesame Street" and then tested on recognition and classification of body parts, numbers, letters, and geometric forms. Results showed that: (1) children made positive gains; (2) gains depended on background characteristics; (3) visual attention was high; (4) certain production techniques increased interest; and (5) the tests proved acceptable. This report describes subjects, procedures, results, and interpretations; the appendixes provide graphical and tabular summaries. (EMH)

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I REPORT OF RESEARCH ON FIVE TEST SHOWS

The first five experimental hour-long versions of "Sesame Street" were produced during July of 1969. In late July and early August, these five shows were submitted to various forms of field testing. This report presents the results of that testing.

Following are the main purposes underlying the field testing:

1. To provide formative information about the effectiveness of the shows, in terms of
    a. appeal (extent to which the program elements sustain the attention and interest of preschool children).
    b. instructional effectiveness (extent to which the teaching goals related to letters, numbers, forms, relational terms, etc., were being achieved.
2. To provide Educational Testing Service, which will be doing a full-scale evaluation of the six-month "Sesame Street" series, with a plot study of
    a. the technical performance of their newly designed tests (reliabilities, difficulty levels, etc.)
    b. the problems of establishing and maintaining the experimental and control conditions in experiments with children who are viewing broadcast television in their own homes.

I Abstract

The major findings of the studies reported here may be summarized as follows:

1. Four-year old children who viewed the five hour-long test shows made positive gains on tests over various CTW goals. These gains appear to be positively related to (a) the amount of emphasis on the specific goal in the programming, (b) the manner in which the goal-related subject matter was presented, and (c) the extent to which the children exhibited relevant overt responses to the given program segment.

2. Background characteristics of the children are related to the average level at which they are already functioning in virtually all goal areas. On pretests, children from middle-class neighborhoods performed at a higher average level than children in day-care centers, and the latter, in turn, outperformed disadvantaged children who had had no previous classroom experience. Positive gains were found in all three groups.

3. The visual attention of the four-year olds was as high for the test shows as for any other children's programs previously tested, including both commercial and non-commercial, cartoon and live-action. The research demonstrated the feasability of sustaining the visual attention of four-year old children over an hour-long show.

4. Repeated exposures, varied treatment, and visual simplicity (freedom from irrelevant elements) were generally the most effective treatments from the standpoint of instructional effectiveness. Careful manipulation of such factors can lead to significantly increased instructional effectiveness.

5. The tests designed by Educational Testing Service and administered as part of the study reported here have been found by ETS to be acceptable in terms of important technical characteristics, and have been revised as a result of this study.

6. A great deal of monitoring will be required in order to sustain the experimental conditions of "viewing" and "non-viewing" in the case of children studied in their own homes.

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II. SUBJECTS AND PROCEDURES

This report presents a compilation of results on children from various backgrounds, who viewed the shows in various contexts, and who were tested and observed by a variety of methods. In Philadelphia, two groups of four-year old children viewed the shows individually, in their own homes, as it was aired over a local ETV station. One group came from a disadvantaged neighborhood in North Philadelphia. All children in this sample were black. The second Philadelphia group was from a white middle-class neighborhood. In New York City, four-year olds from day care centers viewed the programs on video tape monitors. These children viewed in groups of varying size. A second day-care sample viewed the program under the distractor condition.

Among the types of information collected on these groups were observational data and test results. A more detailed description of make-up of the groups and the types of data collected are described below. The data for this report is based on three types of response measures: (1) Test results, (2) Observed reactions of children viewing the shows, and (3) Distractor data. These are discussed in more detail below.

TESTS

The ETS Test Battery

1. Body Parts Test (BP) - This test includes items designed to measure the child's familiarity with the names and functions of various body parts. At different points in the test, the child must: (1) Provide labels for body parts pictorially presented, (2) recognize a given body part when the label is provided for him, (3) identify the function of given body parts, and (4) recognize a body part when given its major function.

2. Numbers Test (NT) - This test includes items designed to measure the child's familiarity with numbers. It includes items which assess the child's ability to: (1) label numerals, (2) recognize a numeral given the label, (3) given a numeral, select its duplicate from a set of numerals, (4) count, (5) enumerate objects, (6) recognize an instance of twoness, fourness, etc., (7) add, subtract, multiply and divide.

3. The Letters Test (LT) - This test includes items designed to assess the child's ability to: (1) label capital and lower case letters, (2) recognize a letter given its label, (3) match a letter when its duplicate is presented in a set of letters (or words), and (4) given a letter, find the picture of something that starts with that letter.

4. Forms Test (FT) - This test includes items on the naming and recognition of circles, rectangles and triangles.

5. Classification Test (CT) - In the first half of this test, three pictures appeared on the left hand page. These pictures defined the basis of classification. The child was required to select one picture belonging on the left hand page from a set of four pictures appearing on the right hand page. Items were included where classification was based on shaped, size, numerosity, and function. In the second half of this test, four pictures were included on one page. Three of the objects pictured had some property in common (shape, size, etc.); the fourth, did not. The child was asked to find the picture that did not belong on the page.

Program Specific Items (PS)

To supplement the ETS battery, a test composed of items specific to the five test shows was created. These items will be discussed in relation to the specific spots they were designed to test.

OBSERVED REACTIONS OF CHILDREN TO THE SHOWS

Detailed observations were made on the reactions of children to each segment of each show. Subjects were four-year old children from day care centers in New York City. The children viewed in groups of varying size (usually three or four in a group). The group rather than individual reactions were recorded.

DISTRACTOR DATA

A running record of the time a child's eyes were on the TV screen was obtained for ten children over two test shows. Data from the ten children were combined and graphs were constructed describing fluctuations in attention over the course of a show.

Four separate studies were conducted yielding the data on which this summary is based. A summary of these studies is presented figuratively on the next page. They are described briefly below:

1. Philadelphia Disadvantaged Study - Forty black four-year old children, selected from disadvantaged neighborhoods in North Philadelphia served as subjects in this study. Each child received the entire ETS battery along with the Program Specific Test. Two groups were formed, matched on the basis of performance on selected program specific items. One group was assigned to the experimental condition. Parents of children in this group were asked to have their child watch Sesame Street for each of the five days that the program was on the air. The program was aired on Channel 35 in Philadelphia from 10:00 A.M. to 11:00 A.M. on July 21 - 25. The other group was assigned to the control condition. Parents of children in this group were asked to encourage their children to watch regularly scheduled programs on Channel 10 during the time Sesame Street was aired on 35.

STUDY	N	Pre-test	Treatment	Post-test
Philadelphia Disadvantaged				
Experimental	20	YES	5 shows - Sesame St.	YES
Control	20	YES	5 shows - Regular programming	YES
	40			
Philadelphia Middle Class	20	YES	5 shows - Sesame St.	YES
New York Day Care				
Experimental	12	YES	5 shows - Sesame St.	YES
Control	12	YES	Nothing	YES
	24			
New York Day Care				
Distractor	10	NO	Sesame St. shows 1 & 4	NO

Fig. 1. Summary of the design for four studies designed to evaluate the five test shows of Sesame Street.

At the end of the week, both groups werere-tested on ETS and program specific items. The results will be discussed in relation to specific program segments.

2. Philadelphia Middle-Class Sample - During the same period that the disadvantaged study was conducted, a similar study was carried out in a white middle-class neighborhood with 20 four-year old white children serving as subjects. Each of these children were pretested on the ETS and program specific tests. Following pretest, every child watched Sesame Street on Channel 35 during the five-day period in which it was aired in Philadelphia. This group was also posttested immediately following viewing of the five test programs.

3. New York Day Care Sample - Twenty-four four-year old were pretested on a shortened version of the ETS battery and on the Program Specific items. Half of these children were randomly assigned to the experimental group, the other half to the control group. Children in the experimental group viewed the five Sesame Street test shows in groups of various sizes. Following the viewing of the program, both experimental and control subjects were posttested.

4. New York Distractor Study - Ten four-year old children from a day care center in New York viewed two of the test shows, (Shows 1 and 4) under the standard distractor procedures.

III. RESULTS

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RESULTS

LETTERS OF THE ALPHABET

Reciting the Alphabet

The ability of the child to recite the alphabet was tested on item 95 of the Letters Test. The results are reported in Table 1.

The child was asked to say his ABC's and the ordinal position of the last letter he reached was recorded as his score. In general, the children could not recite very much of the alphabet, as indicated by the low pretest scores. Small positive gains were made by each of the experimental groups. The N.Y. Day Care sample had the largest gain with the children being able to recite an average of three more letters on the posttest than on the pretest.

The letter "D"

Gain in knowledge about "D" was tested in various ways at different levels of learning. The items providing information on knowledge of "D" were:

	Test	Item
1. Naming D	Letters	31
2. Naming d	Letters	72
3. Recognizing D	Letters	21
4. Recognizing d	Letters	27
5. Matching D to D	Letters	7
6. Matching d to d	Letters	8
7. Matching D to d	Program Specific	15
8. Making a D	Program Specific	

Results: The results of the testing are presented in Tables 2 and 3. Small positive gains were found in the ability to name both "D" and "d" in the Philadelphia samples for subjects who had viewed the show. These gains were not replicated in the New York City day care study. In general the gains on any item related to "D" were neither substantial nor consistent.

The letter "R"

Knowledge of "R" was tested on the following items:

	Test	Item
1. Naming R	Letters	79
2. Naming r	Letters	37
3. Recognizing R	Letters	20
4. Recognizing r	Letters	26
5. Matching R to R	Letters	6
6. Matching R to r	Program Specific	15

Results: Results on R are presented in Tables 4 and 5. Small positive gains were consistently found for Naming R and Recognizing R. Only chance fluctuations in performance were found on the remaining items relevant to R.

The letter "W"

Knowledge of W was tested on the following items:

		Test	Item
1.	Naming W	Letters	34
2.	Recognizing W	Letters	22
3.	Recognizing w	Letters	25
4.	Matching W to W	Letters	9
5.	Matching W to w	Program Specific	15
6.	Making a W	Program Specific	
7.	Sorting on the basis of W (the W Game)	Program Specific	

Results: Data from the above items are summarized in Tables 6 and 7. With one exception, substantial gains were found in Naming W, Recognizing W and Recognizing w, the exception being the disadvantaged Philadelphia group where there was no gain on recognizing W. In matching W to W and matching W to w, experimental groups gained more than control in both the disadvantaged and the day care samples. The middle-class group did not show this gain.

When children were asked to name a "W" that appeared in a picture from the screen showing Kermit battling with the "W", experimental groups far surpassed the non-viewing control groups.

Gain in Naming Letters

A separate table (Table 8) shows the combined results for all test items which involve naming of letters. These results are reported separately for capital and small letters. For capital letters the table shows a substantial gain in the ability to name letters (D, R and W) was found in all groups who viewed the program. These gains were not found in control groups.

No differences were found in the gain on naming small letters between children who viewed the programs and their control groups.

BODY PARTS

The ability to recognize and label body parts and functions was tested on the ETS Body Parts Test. The results are presented in Table 9.

There were no gains in recognizing or labelling body parts and their functions by experimental subjects relative to their control groups.

RELATIONAL CONCEPTS

The six relational concepts dealt with in the test shows were: 1) around, 2) over, 3) under, 4) through, 5) bigger, and 6) biggest. Gain in the ability to recognize and label these concepts was tested on the following items:

Concept	Test	Item
Recognition of around	P.S.	13b
Labelling of around	P.S.	14d
Recognition of over	P.S.	13e
Labelling of over	P.S.	14a
Recognition of under	P.S.	13c
Labelling of under	P.S.	14c
Recognition of through	P.S.	13d
Labelling of through	P.S.	14b
Recognizing bigger	P.S.	1
Recognizing biggest	P.S.	2

Results: The results of the testing of relational concepts are presented in Tables 10, 11 and 12.

Small positive gains were found in both recognition and labelling of "around". These gains were most prominent in the New York Day Care sample which was the most controlled viewing and testing situation. The Philadelphia middle-class sample was at the ceiling level in demonstrating "around" and reached the ceiling level in ability to recognize "around". There were no gains in either recognition or labelling of "under", "over", or "through".

No gain scores can be reported on bigger and biggest since these items were only given on the posttest. It is worth noting, however, that a very high percentage of all groups were able to correctly recognize the concepts of bigger and biggest on the posttest, regardless of whether they viewed the programs or not.

NUMBER

Counting

The ability of the child to count from one to ten was tested in the Program Specific Test. The results are reported in Table 13.

The experimental group of the Philadelphia disadvantaged sample gained an average of one and a half to two numbers per child in the counting sequence. The Philadelphia middle-class gained an average of more than half a number per child. This score is lowered by the high percentage of middle-class children counting beyond ten in the pretest. With this large a percentage of children already at the ceiling level, there was not much room for gain. The New York Day Care sample and the control group of the Philadelphia disadvantaged sample had average gains of less than half a number per child.

Two

The knowledge of two and twoness was tested on the ETS Numbers Test on the following items:

	Test	Item
Recognizing the numeral two	N.T.	7
Labelling the numeral two	N.T.	16
Recognizing instances of twoness	N.T.	27
Labelling the amount when two objects are presented.		
Counting out two objects	N.T.	2

Results: The results of the testing of knowledge of two and twoness are reported in Tables 14 and 15.

Recognizing the numeral two - No gains were made by any of the sample groups in the recognition of the numeral two. There was a significant loss in the recognition of the numeral two made by the Philadelphia disadvantaged experimental group.

Labelling the numeral two - Small positive gains were made by the New York Day Care experimental group and the Philadelphia middle-class group in labelling the numeral two.

Recognizing instances of twoness - The Philadelphia middle-class sample were already at the ceiling level on this item. Both the New York Day Care and the Philadelphia disadvantaged experimental groups made positive gains in recognizing instances of twoness. However, these gains were within the chance level of 50%.

Labelling the amount when two objects are presented - Two items on the Numbers Test dealt with this ability, 1) How many fingers am I holding up? and, 2) How many eyes do you have?

How many fingers am I holding up? On this item the experimental group in the Philadelphia disadvantaged sample showed a loss from pre to posttesting while their control groups showed a gain. The middle-class sample showed only a slight gain but were so near the ceiling on the item that there was little room for more gain. In the day care center, the experimental group did show a gain, but so did their non-viewing controls. There is no evidence in gain on this item in any of the three studies.

How many eyes do you have? A small positive gain was obtained in the day care experimental group relative to the control group. The middle-class Philadelphia sample was at the ceiling on this item. In the Philadelphia disadvantaged sample, there is no evidence of gain on this item as a result of viewing the test shows.

Counting out two objects - Both the control and experimental groups of the Philadelphia disadvantaged sample had small losses on this item while the Philadelphia middle-class sample and the experimental group of the New York Day Care sample made small positive gains. The control group of the New York Day Care sample had a substantial loss on this item.

Three

The knowledge of three and threeness was tested on the ETS Numbers Test on the following items:

	Test	Item
Recognizing the numeral 3	N.T.	5
Labelling the numeral 3	N.T.	14
Labelling the amount when three objects are presented		
Counting out three objects	N.T.	38

The results of the testing of knowledge of three and threeness are presented in Tables 15 and 16.

Recognition of the numeral three - No gains were found in any of the sample groups in the ability to recognize the numeral three.

Labelling the numeral three - Small positive gains were made by the Philadelphia disadvantaged experimental group and the Philadelphia middle-class sample in the ability to label the numeral three. No other sample group made any gains in this area.

FORMS

The children were tested for their knowledge of four different forms; the circle, the triangle, the square and the rectangle. The forms were tested by recognition items, labelling items, matching items, grouping items and sorting items.

Circle (Round)

Knowledge of circle was tested on the following items:

	Test	Item
Recognizing circle	Forms Test	1
Naming circle	Forms Test	5
Matching circles (round shapes)	Letters Test	4
Grouping circular objects	Classification Test	12

The results of the testing are presented in Table 17. In recognition of circle and matching circles, fluctuations were all within the area of chance. In naming "circle" there were positive gains in two experimental groups, the Philadelphia disadvantaged sample and the Philadelphia middle-class sample. There were no gains in the disadvantaged control group, the day care control group or the day care experimental group.

In the grouping of round objects, there was movement in the positive direction in both experimental groups of the Philadelphia sample.

Rectangle

Knowledge of rectangle was tested on the following items:

	Test	Item
Recognizing rectangle	Forms	2
Naming rectangle	Forms	6
Matching rectangles	Letters	3
Grouping rectangular objects	Classification	9

The results of the testing are presented in Table 18. In recognition of rectangle, there were positive gains in the experimental group of the N.Y. Day Care sample and movement in the positive direction in the middle-class sample. There was no gain in the Philadelphia disadvantaged sample. In the naming of rectangle, there were gains in both the experimental and control groups of the New York Day Care sample. There was also gain in the control group of the Philadelphia disadvantage sample. The experimental groups in Philadelphia dropped in their ability to name the rectangle. In matching rectangles, the day care sample was at the ceiling in both pre and post tests. There was a small gain in the experimental group of the Philadelphia disadvantaged sample. There was no gain in the other samples on this item. In grouping rectangular objects, there was a drop in the control group of the Philadelphia disadvantaged sample. In the other samples there was no change.

Square

Knowledge of square was tested on the following items:

	Test	Item
Grouping squares	Classification	1
Sorting squares	Classification	23

The results of these test items are presented in Table 19. In the grouping of squares, there was no change in day care in disadvantaged groups. The middle-class Philadelphia sample showed gain, but within the chance level of fluctuation. In the sorting item, there were positive results in the middle-class sample. There was no gain in the Philadelphia disadvantaged sample, although the control group showed positive movement.

Triangle

Two different triangles were used, an equi-lateral triangle, and a right triangle in testing the child's knowledge of triangles. Knowledge of the triangles was tested in the following items:

	Test	Item
Naming △	Forms	7
Naming ◿	Forms	8
Recognizing △	Forms	3
Recognizing ◿	Forms	4
Matching ◸	Letters	5
Grouping triangular objects	Classification	22

The results of the tests for these items are listed in Tables 20 and 21. In naming "triangle" for the equi-lateral triangle, there were substantial gains in all three experimental groups, and not in the control groups. There were also large gains in the three experimental groups in the naming of "triangle" for the right triangle, although these were not as great as for the equi-lateral triangle. There were no gains greater than chance level in recognizing either the equi-lateral or the right triangle for the experimental groups. The control group for Philadelphia disadvantaged went up in recognition of the equi-lateral triangle, however. There were no gains in recognition of the right triangle for the control groups.

In the matching of right triangles, experimental group of the N.Y. Day Care sample showed positive gains. The experimental group of the Philadelphia disadvantaged sample showed positive movement that was within chance level. Little change in matching was obtained in non-viewing groups.

Sorting by Form

The ability of the child to sort three-dimensional circles, triangles, and squares was tested on the Program Specific Test, Item 19. The results are given in Table 22. There were no gains on this item.

KNOWLEDGE OF ANIMALS

Recognizing and Naming Animals

The ability to recognize and name animals was tested on the following items:

Naming	Test	Item
kitten	P.S.	1a
bear	P.S.	1c
deer	P.S.	1d
rabbit	P.S.	1b
lizard	APS	

Recognition	Test	Item
kitten	P.S.	2a
bear	P.S.	2c
deer	P.S.	2d
rabbit	P.S.	2b

The results of the testing of naming and recognizing animals are presented in Tables 24, 25, and 26.

Kitten: all three groups were at or near the ceiling level in both naming and recognizing the kitten.

Rabbit: There were positive gains in naming of the rabbit in the substantial Philadelphia disadvantaged group and positive gains in the New York Day Care group. The Philadelphia middle-class group were already at the ceiling level on this item.

Deer: There were no gains in naming the deer in the Philadelphia disadvantaged group or the New York Day Care group and only small positive gains in the Philadelphia middle-class. The only gains in recognition of the deer were found in the Philadelphia disadvantaged group.

Bear: There were small positive gains in naming the bear in the New York Day Care group and the Philadelphia disadvantaged group. The Philadelphia middle-class group was already at the ceiling level. No gains were found in recognition of the bear.

Lizard: Naming the lizard was only given as a posttest item. Therefore, no gain scores can be reported. It might be noted, however, that no children in the New York Day Care sample were able to name the lizard on the posttest and only a very small percentage in the Philadelphia sample were successfull on this item.

Information About Animals

Two additional related items that appeared in the Program Specific Test were:

3. What does a cat drink? and
17. Where does milk come from?

The results on these items are presented in Table 24. The only substantial positive gains were found in the Philadelphia middle-class group on identifying the source of milk.

TRANSPORTATION

The ability to label various means of transportation and the medium on which they travel (i.e., air, tracks, road, water) was tested in the following items:

Vehicle	Test	Item
Boat	P.S.	5b1 & C4
Car	P.S.	5b2 & C1
Plane	P.S.	5b4 & C2
Train	P.S.	5b3 & C3

The Philadelphia middle-class sample was at or close to the ceiling on all transportation items. Only small positive gains were found in the Philadelphia disadvantaged sample on items dealing with airplanes. Here, viewers slightly surpassed controls in labelling & recognizing airplane and identifying the medium in which it travels. There were no other gains by viewers on transportation items relative to their control groups.

COMMON UTENSILS

The ability to label common utensils and name and recognize their function was tested in the following items:

Utensils	Test	Item
Labelling hammer	P.S.	63
Giving function of hammer	P.S.	63
Recognizing function of hammer	P.S.	72
Labelling umbrella	P.S.	61
Giving function of umbrella	P.S.	61
Recognizing function of umbrella	P.S.	75
Labelling fishing pole	P.S.	62
Giving function of fishing pole	P.S.	62
Recognizing function of fishing pole	P.S.	71
Labelling lightbulb	P.S.	65
Giving function of lightbulb	P.S.	65
Recognizing function of lightbulb	P.S.	73

The results of the testing of knowledge of common utensils are presented in Tables 29, 30, 31 and 32.

Hammer: The Philadelphia middle-class sample reached the ceiling level in naming, giving the use of an recognizing the use of the hammer. None of the other sample groups made any gains on these items with the exception of a positive gain made by the control group of the Philadelphia disadvantaged sample on the ability to give the use of the hammer.

Umbrella: The Philadelphia middle-class sample and the New York Day Care experimental group were at the ceiling level in ability to name the umbrella. The control group of the New York Day Care sample made a substantial positive gain so that they also reached ceiling level on the posttest.

There were positive gains made by all groups (experimental and control) in ability to give the use of the umbrella. No gains were made in the ability to recognize the use of the umbrella.

Fishing Pole: The Philadelphia middle-class sample reached the ceiling level in naming, giving the use of and recognizing the use of the fishing pole.

The New York Day Care made positive gains in naming and giving the use of the fishing pole and the Philadelphia disadvantaged experimental group made small positive gains in naming the fishing pole.

Lightbulb: Both the New York Day Care and the Philadelphia disadvantaged sample groups were at the ceiling level in naming the lightbulb. No significant gains were made on any of the lightbulb items by any of the sample groups.

Explanation of Cross-Reference System in Data Tables

Each test item reported in the following tables of results is accompanied by cross-reference numbers both for the available distractor graphs and for the observed reactions of the children to related program segments. The cross-reference numbers are indicated on the right hand side under the heading "Observations".

The first line of numbers always refers to the distractor graphs and the second, third and fourth line of numbers to the observed reactions of groups of viewers.

Cross References to Distractor Graphs

At the time of this study, distractor data was collected on test shows one and four. This data is reported in the graphs which can be found in the appendix. Each distractor interval is numbered on the graph. In the results tables, the number in parentheses refers to the test show and the following numbers refer to the corresponding distractor intervals on the graph.

Ex. (1) 321 - 342
refer to show one distractor

points 321 to 342

Cross References to Observed Reactions

Observations were recorded for each of the five test shows. In the results tables, the number in parenthesis refers to the test show and the following numbers refer to the corresponding show segments.

Ex. (3) 24 . 25 . 32
refer to show three; segments 24, 25 and 32.

① KNOWLEDGE OF "W"

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19 E		N=18 C		N=18 E		N = 12 E		N = 10 C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
Recognizing "W"											(4) 44-55 186-195
(22-LT)											(2) 8.9.10.11.16.2
chance level = 25%	26.3%	26.3%	23.5%	27.8%	33.3%	61.1%	33.3%	75%	10%	20%	(4) 5.23.29.32
—	0%		+4.3%		+27.8%		+41.7%		+10%		(5) 31.33

1. Title of table
2. Name of item
3. Test and item number (where the information was obtained)
4. Percentage of fluctuation that could have occurred by chance. If not given chance level = 0%
5. If $\overline{X}$ is present in this position, it indicates that scores are average gain rather than percentage gain.
6. Sample group
7. Number of children in sample group
8. E = Experimental group (those children who viewed the test shows)
9. C = Control group (those children who did not view the test shows)
10. Percentage of sample that answered the test item correctly on the pretest (before they viewed the shows)
11. Percentage of sample that answered the item on the posttest (after they viewed the test shows for the experimental group and after a week's time for the control group)
12. Percentage of score gains or losses from pretest to posttest
13. Cross references to points on the distractor graph
    (4) = show four 44-55 = points 44 to 55 on the show 4 distractor graph
14. Cross references to observed reactions of groups of day care children during show segments
    (2) = show two 8.9.10 etc. = segments 8.9.10 etc. of show 2

TABLE I. ALPHABET RECITATION

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLES CLASS		NEW YORK DAY CARE				OBSERVATIONS
BC'S (LT)	N=16 E		N=7 C		N-8 E		N=7 E		N-8 C		(1) 95-114 377-382 423-425 (4) 255-268
RANGE = 0-26	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 17.18.47 (2) 7.32
$\overline{X}$	03.70	04.60	09.90	07.00	11.40	12.50	05.00	07.70	02.00	02.80	(3) 3.5.11 (4) 33.34.
$\overline{X}$ gain	+00.90		-02.90		+01.10		+02.70		+00.80		35.41 (5) 16.34.39
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE 2 KNOWLEDGE OF "D"

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLES CLASS		NEW YORK DAY CARE				OBSERVATIONS
MING "D" (31-L)	N=19 E		N=17 C N=18		N=18 E		N=12 E N=12		N=10 C N=10		24-30 , 45-94, (1) 169-173 , 304-[illegible]
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 3·4·5·8·10·12·14·15·
	05.3%	21.1%	11.8 %	16.7%	22.2 %	44.4%	42.0%	33.3%	20.0%	30.0 %	16 ·24·34 (4) 4
	+15.8 %		+04.9 %		+22.2 %		-08.7 %		+10.0 %		(5) 23 , 24.
COGNIZING "D" (31-L	E		C		E		E		C		(1) 24-30 45-94 169-173 304-30
HANCE = 25 %	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 3·4·5·8·10·12·14·15· 16·
	47.4 %	31.6%	64.7 %	44.4%	61.1 %	50.0%	58.0%	50.0%	30.0 %	30.0 %	24·34 (4) 4
	-15.8 %		-20.3 %		-11.1 %		-08.0 %		-00.0 %		(5) 23·24
ITCHING "D" (7-L)	E		C		E		E		C		(1) SAME AS ABOVE
HANCE = 25 %	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) SAME AS ABOVE
	73.7 %	78.9 %	70.6%	94.4%	100.0 %	94.4%	100.0 %	100.0%	100.0%	100.0%	(4) " " "
	+05.2 %		+23.8 %		-.05.6 %		CEILING		CEILING		(5) " " "
AKING A "D" (FS)	E		C		E		E		C		(1) 24·30 45-94
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 3 ·5
	10.5 %	10.5%	05.6 %	05.6%	11.8 %	23.5%	16.7%	16.7%	10.0%	00.0%	
	00.0 %		00.0		+11.7 %		00.0		-10.0 %		

TABLE 3 KNOWLEDGE OF "d"

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLES CLASS		NEW YORK DAY CARE				OBSERVATIONS
AMING "d" (72-L)	N=19 E		N=17 C N=18		N=18 E		N=12 E		N=10 C		(1) 1:6-188 (4) 43-45 (1) 25-28 45-80 169-173
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 4·8·10·12·21·23·24·
	00.0 %	05.3 %	06.5 %	05.6 %	11.1 %	16.7 %	25.0 %	25.0 %	20.0 %	10.0 %	27·28 (4) 4 (5) 23
	+05.3 %		-00.9 %		+05.6 %		00.0		-10.0 %		
ECOGNIZING "d" (27-L)	E		C		E		E		C		SAME AS ABOVE
CHANCE = 25 %	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	" " "
	26.3 %	47.4 %	64.7 %	44.4 %	44.4 %	22.2 %	25.0 %	17.0 %	30.0 %	10.0 %	" " "
	+ 21.1 %		- 20.3 %		-22.2 %		-08.0 %		-20.0 %		" " "
ATCHING "d" to "d" (S-L)	E		C		E		E		C		SAME AS ABOVE
CHANCE = 25 %	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	" " "
	42.1 %	15.8 %	65.9 %	33.3 %	33.3 %	38.9 %	25.0 %	42.0 %	00.0 %	20.0 %	" " "
	-26.3 %		+27.4 %		+05.6 %		+17.0 %		+20.0 %		" " "
ATCHING "D" to "d" (PS)	E		C		E		E		C		SAME AS ABOVE
CHANCE = 25 %	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 4·8·10·12·24
	47.4 %	15.8 %	16.7 %	22.2 %	11.8 %	41.2 %	25.0 %	41.7 %	20.0 %	40.0 %	(5) 23
	-31.6 %		+05.5 %		+29.4 %		+16.7 %		+20.0 %		

TABLE 4. KNOWLEDGE OF "R"

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=17 E		N=17 C N=18		N=18 E		N=12 E		N=10 C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
MING "R" (79-L)	05.3 %	10.5 %	05.9 %	05.6 %	22.2 %	38.9 %	08.3 %	16.7 %	10.0 %	00.0 %	(4) 123-134 179-203 (3) 7.9.14.23.24.34.35
	+05.2 %		-00.3 %		+16.7 %		+06.4 %		-10.0 %		(4) 21.22.29 (5) 24 .
COGNIZING "R" (20-L) CHANCE = 25 %	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	SAME AS ABOVE
	36.8 %	47.4 %	23.5 %	22.2 %	50.0 %	55.6 %	50.0 %	66.7 %	40.0 %	50.0 %	SAME AS ABOVE " " "
	+10.6 %		-01.3 %		+05.6 %		+16.7 %		+10.0 %		" " "
TCHING "R" (6-L) CHANCE = 25 %	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(4) SAME AS ABOVE
	78.9 %	78.9 %	70.6 %	94.4 %	100.0 %	100.0 %	100.0 %	91.7 %	100.0 %	100.0 %	SAME AS ABOVE " " "
	00.0 %		+23.8 %		CEILING		-08.3 %		CEILING		" " "
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE 5. KNOWLEDGE OF "r"

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
MING "r" (37-L)	N = 19 E		N=17 C N=18		N = 18 E		N = 12 E		N = 10 C		(4) 206 -213
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(4) 30
	00.0 %	00.0%	00.0 %	05.6%	16.7 %	11.1%	08.3 %	33.3%	00.0%	30.0 %	
	00.0 %		+05.6%		-05.6 %		+25.0%		+30.0%		
COGNIZING "r" (26-L) CHANCE = 25 %	E		C		E		E		C		(4) 206 -213
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(4) .30
	21.1 %	15.8 %	23.5 %	22.2%	27.8 %	33.3%	25.0%	16.7%	20.0%	30.0 %	
	-05.3 %		- 01.3 %		+ 05.5 %		-08.3 %		+ 10.0 %		
TCHING "R" to "r" (FS) CHANCE = 25 %	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	26.3 %	21.1 %	22.2 %	27.8 %	35.3 %	41.2%	16.7%	25.0%	00.0%	40.0 %	
	-05.2 %		+05.6 %		+ 05.9 %		+08.3%		+ 40.0 %		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE 6. KNOWLEDGE OF "W"

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19 E		N=17 C 11-19		N=18 E		N=12 E		N=10 C		45-55 122-134 (2) 135-145 176-195
AMING "W" (34-L)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	27 (3) 8·9·10·11·16·20·21·3
	05.3%	26.3%	11.8%	11.1%	16.7%	50.0%	16.7%	50.0%	20.0%	10.0%	(4) 5·23·29·32
	+21.0%		-00.7%		+33.3%		+33.3%		-10.0%		(5) 31·33
ECOGNIZING "W" (22-L) CHANCE = 25%	E		C		E		E		C		SAME AS ABOVE
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	SAME AS ABOVE
	26.3%	26.3%	23.5%	27.8%	33.3%	61.1%	33.3%	75.0%	10.0%	20.0%	" " "
	00.0%		+04.3%		+27.8%		+41.7%		+10.0%		" " "
TCHING "W" to "W" (9-L) CHANCE = 25%	E		C		E		E		C		SAME AS ABOVE
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	SAME AS ABOVE
	68.4%	78.9%	82.3%	83.3%	100.0%	94.4%	75.0%	91.7%	90.0%	80.0%	" " "
	+10.5%		+01.1%		-06.6%		+16.7%		-10.0%		" " "
ECOGNIZING "w" (25-L) CHANCE = 25%	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	15.8%	42.1%	23.5%	16.7%	50.0%	61.1%	41.7%	83.3%	30.0%	20.0%	
	+26.3%		-06.8%		+11.1%		+41.6%		-10.0%		

TABLE 7. KNOWLEDGE OF "W"

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
KING "W" (PS)	05.3%	05.3%	05.6%	00.0%	17.6%	23.5%	00.0%	00.0%	00.0%	00.0%	(1) 45-55 122-134 135-145 186-195 (2) 8·9·10·11·16·20·21·30 27 (4) 5·23·28·32 (5) 31· 33
	00.0%		-05.6%		+05.9%		00.0%		00.0%		
TCHING "W" + "w" (PS)	26.3%	73.7%	44.4%	77.8%	72.4%	76.5%	50.0%	100.0%	70.0%	90.0%	
	+47.4%		+33.4%		-05.9%		+50.0%		+20.0%		
E "W" GAME (PS) SORTING TASK AS SUSAN PLAYED GAME IN SHOW 2- SEGMENT 30 CHANCE = 25% LY GIVEN ON POST-TEST		58.0%		73.0%		58.9%		83.3%		60.0%	(2) 30
MING "W" IN ERMIT SCENE (PS) " IS SHOWN ON HOTOGRAPH TAKEN ROM SHOW 4- SEGMENT 28. UGN ON POST-TEST ONLY		31.2%		06.3%		61.1%		56.0%		00.0%	(4) 28 · 32

TABLE 8. GAIN IN NAMING LETTERS

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
AMING CAPITALS (D, R + W)	N=19. E		N=17 N=18 C		N=18 E		N=12 E N=12		N=10 C		
RANGE = 0-3	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
$\overline{X}$	0.16	0.58	0.29	0.33	0.61	1.33	0.67	1.00	0.50	0.40	
$\overline{X}$ gain	+ 0.42		+0.04		+0.72		+0.33		-0.10		
AMING LOWER CAS (r + d)	E		C		E		E		C		
RANGE = 0-2	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
$\overline{X}$	0.00	0.05	0.06	0.11	0.28	0.28	0.33	0.58	0.20	0.40	
$\overline{X}$ gain	+0.05		+0.05		0.00		+0.25		+0.20		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE 9. BODY PARTS

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19 E		N=18 C		N=10 E N=18		N=12 E		N=10 C		
BELLING BODY PARTS RANGE = 0-20	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(3) 14
$\bar{X}$	13.47	13.60	12.39	13.39	15.84	16.94	13.42	13.83	12.70	12.80	(5) 25·32
$\bar{X}$ gain	-0.47		+1.00		+1.10		+0.41		+0.10		
ECOGNIZING BODY PARTS RANGE = 0-20	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(3) 14
$\bar{X}$	7.74	7.68	7.61	8.17	9.00	9.56	7.42	8.33	7.60	7.50	(5) 25·32
$\bar{X}$ gain	-0.06		+0.56		+0.56		+0.91		-0.10		
ECOGNIZING PART GIVEN FUNCTION RANGE = 0-8	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
$\bar{X}$	3.79	4.16	4.22	5.06	6.84	6.72	5.67	6.67	5.86	5.70	
$\bar{X}$ gain	+0.37		+0.84		-0.12		+1.00		-0.10		
NAMING PART GIVEN FUNCTION RANGE = 0-3	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(5) 19
$\bar{X}$	1.21	1.37	1.28	1.44	2.68	2.61	2.17	2.17	1.40	1.40	
$\bar{X}$ gain	+0.16		+0.16		-0.07		0.00		0.00		

TABLE D. RELATIONAL CONCEPTS

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
ECOGNITION OF VER (PS) CHANCE = 25 %	38.9%	36.8%	44.4%	50.0%	87.9%	94.4%	58.3%	58.3%	20.0%	40.0%	(4) 276-310 (4) 36 (5) 29
	-02.1%		+05.6%		+05.6%		00.0%		+20.0%		
EMONSTRATING OVER (PS)	57.9%	36.8%	55.6%	38.9%	100.0%	100.0%	41.7%	50.0%	30.0%	40.0%	SAME AS ABOVE SAME AS ABOVE
	-21.1%		-16.7%		Ceiling		+08.3%		+10.0%		
ECOGNITION OF THROUGH (PS) CHANCE = 25%	77.8%	84.2%	72.2%	94.4%	94.4%	100.0%	75.0%	83.3%	30.0%	60.0%	(3) 20
	+06.4%		+22.2%		Ceiling		+08.3%		+30.0%		
EMONSTRATING THROUGH (PS)	84.2%	89.5%	72.2%	94.4%	100.0%	100.0%	75.0%	83.3%	70.0%	70.0%	(3) 20
	+05.3%		+22.2%		Ceiling		+08.3%		00.0		

TABLE 11. RELATIONAL CONCEPTS

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N-19 E		N=18 C		N-18 E		N=12 E		N=10 C		
ECOGNIZING UNDER (15)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(4) 276-310
CEILING =75 %	88.9 %	63.2 %	66.7 %	83.3 %	100.0 %	100.0 %	58.3 %	66.7 %	60.0 %	70.0 %	(4) 36
	-25.7 %		+16.6 %		ceiling		+08.4 %		+10.0 %		(5) 29
	E		C		E		E		C		
EMONSTRATING UNDER (15)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(4) 276-310
	36.8 %	31.6 %	38.9 %	38.9 %	94.4 %	88.8 %	41.7 %	41.7 %	40.0 %	40.0 %	(4) 36
	-05.2 %		00.0 %		-05.6 %		00.0 %		00.0 %		(5) 29
OTAL RECOGNITION	E		C		E		E		C		
(OVER, UNDER, AROUND, THROUGH)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
RANGE = 0-4 $\bar{X}$	2.42	2.68	2.83	2.94	4.94	4.89	2.33	3.00	2.20	2.40	
$\bar{X}_{gain}$	+0.26		+0.11		-0.05		+0.67		+0.20		
OTAL DEMONSTRATION	E		C		E		E		C		
(OVER, UNDER, AROUND, THROUGH)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
$\bar{X}$	3.39	3.11	3.00	3.72	4.61	4.94	3.08	3.50	2.40	3.20	
RANGE=0-4 $\bar{X}_{gain}$	-0.28		+0.72		+0.33		+0.42		+0.80		

TABLE 12. RELATIONAL CONCEPTS

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
UND - RECOGNITION S) CHANCE = 25%	83.3%	84.2%	77.8%	83.3%	94.4%	100%	58.3%	83.3%	80.0%	80.0%	(4) (4) (5)
	+ 00.9%		+ 05.5%		+ 05.6%		+ 25.0%		00.0%		
UND-DEMONSTRATING (PS)	42.1%	47.4%	66.7%	55.6%	100%	100%	41.7%	58.3%	50.0%	60.0%	SAME AS ABOVE
	+ 05.3%		- 11.1%		CEILING		+ 16.6%		+ 10.0%		
GER - RECOGNITION S) POST-TEST ONLY		94.7%		[illegible]		94.4%		92.0%		100.0%	(1) (1) (2) (5)
GEST - RECOGNITION S) POST-TEST ONLY CHANCE = 20%		73.7%		66.7%		100%		83.0%		80.0%	(1) 76-79 (1) 14 (2.) 12-

TABLE 13: COUNTING 1 TO 10

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
OUNTING (PS) ANGE = 0 – 10 $\overline{X}$											(4) 40-42, 72-77, 79-83 (1) 307-314, 333-338 (1) 35-40 (2) 23 (3) 17·22·25·27·32·37
gain	+ 01.68		+ 00.54		+ 00.63		+00.50		+00.20		(4) 3·9·11, (5) 6
OUNTING BEYOND EN	21.0%	47.0%	38.0%	54.0%							
	+ 26.0%		+16.0%		+17.0%		+08.0%		− 10.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE IV. KNOWLEDGE OF TWO

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19		N=18		N=18		N=12		N=10		
	E		C		E		E		C		
ecognition OF THE UMERAL 'TWO' N.T. 7) HANCE LEVEL = 25%	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	① 309-355 ⑭ 357-365
	47.4%	21.1%	38.9%	38.9%	77.8%	72.2%	58.3%	50.0%	44.4%	33.3%	① 35.37.38·39.40·41·42. ③ 17.18.22.26·32·38
	−26.3%		00.0%		−05.6%		−08.3%		−11.1%		④ 39 ⑤ 8
EELING OF THE UMERAL 'TWO'	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	SAME AS ABOVE
	15.8%	10.5%	22.2%	11.1%	44.4%	55.6%	25.0%	33.3%	50.0%	40.0%	
	−05.3%		−11.1%		+11.2%		+08.3%		−10.0%		
ecognizing instances Twoness N.T. 27) HANCE LEVEL: 50.0%	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	SAME AS ABOVE
	57.9%	68.4%	77.8%	72.2%	100.%	100.%	58.3%	83.3%	70.0%	70.0%	
	+10.5		−05.6%		CEILING		+25.0%		00.0%		
COUNTING OUT TWO OBJECTS (N.T. 37)	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	SAME AS ABOVE
	31.6%	21.1%	55.6%	44.4%	77.8%	83.3%	75.0%	91.7%	100.%	55.6%	
	−10.5%		−12.2%		+05.5%		+16.3%		−44.4%		

TABLE 15. KNOWLEDGE OF TWO

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19 E		N=18 C		N=18 E		N=12 E		N=10 C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
eling the Amount en Two Objects e PRESENTED w many fingers I holding up?)	57.9%	36.8%	44.4%	66.7%	94.4%	100.0%	75.0%	91.7%	70.0%	90.0%	① 309-355 (?) 357 ① 35·37·38·39·40·41·4 ③ 17·18·22·26·32·38 ④ 39 (5) 8
	−21.1%		+22.3%		+22.3%		+16.7%		+20.0%		
	E		C		E		E		C		
abeling The Amount hen Two Objects RE PRESENTED ow many eyes do I have) T. 58)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	Same as ABOVE
	63.7%	57.9%	66.7%	72.2%	100.%	100.%	66.7%	77.5%	100.%	66.7%	
	−05.8%		+05.5%		CEILING		+10.8%		−33.3%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE 16 KNOWLEDGE OF THREE

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19		N=18		N=18		N=12		N=9		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
ECOGNIZING 3 (NT) HANCE = 25%	10.5%	31.6%	27.8%	44.4%	61.1%	61.1%	41.7%	50.0%	22.2%	22.2%	(4) 68–86 (2) 3.5.22.23.25 (4) 9.11.12 (5) 10.
	+21.1%		+16.6%		00.0%		+08.3%		00.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
ABELING 3 (NT)	05.3%	10.5%	16.7%	05.6%	61.1%	66.7%	25.0%	25.0%	44.4%	22.2%	SAME AS ABOVE
	+05.2%		−11.1%		+05.6%		00.0%		−22.2%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
ELLING THREE HINGS ARE THERE (NT)	31.6%	42.1%	61.1%	77.8%	88.9%	83.3%					SAME AS ABOVE
	+10.5%		+16.7%		−05.6%						
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
OUNTING OUT THREE HINGS (NT)	26.4%	26.4%	44.4%	33.3%	77.8%	83.3%	75.0%	75.0%	44.4%	33.3%	SAME AS ABOVE
	00.0%		−11.1%		+05.5%		00.0%		−11.1%		

TABLE 17 KNOWLEDGE OF THREE

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19		N=18		N=13		N=12		N = 10		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
ELLING HOW MANY BIRDS WERE IN A REE (THREE BIRDS) NT)	21.1%	21.1%	38.9%	33.3%	100%	94.4%	50.0%	58.3%	66.7%	55.6%	(9) 68-86 (2) 3·5·22·23·25·3 (4) 9·11·12 (5) 10.
	00.0%		−05.6%		− 05.6%		+ 08.3%		−11.1%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	21.1%	15.8%	44.4%	38.9%	83.3%	94.4%	50.0%	58.3%	77.8%	66.7%	SAME AS ABOVE
	−05.3%		−05.5%		+11.1%		+08.3%		−11.1%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE 18. CIRCLE

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N = 17		N = 18		N = 18		N = 12		N = 10		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
ecognizing circle (FT-1) CHANCE = 25 %	70.5 %	52.9%	61.1%	61.1%	100 %	100 %	83.3%	75.0%	80.0%	50.0 %	(1) 245-269 (1) 30.31
	-17.6 %		00.0%		ceiling		-08.3%		-30.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
aming Circle (FT-5)	11.8 %	23.5 %	11.1 %	11.1 %	50.0%	73.7%	66.7%	66.7%	50.0%	50.0%	(1) 245-269 (1) 30.31
	+ 11.7 %		00.0 %		+23.7%		00.0 %		00.0 %		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
atching Circles (FT-4) CHANCE = 25 %	84.2%	78.9%	75.0%	87.5%	100.0%	94.4%	100.0%	100.0%	100.0%	100.0%	(1) 245-269 (4) 160-18 (1) 30.31 (2) 30 (4) 27
	-05.3 %		+12.5%		-05.6 %		ceiling		ceiling		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
ouping round things (CT-12) CHANCE = 25 %	57.9 %	73.7%	66.7 %	72.2%	77.8%	100%					SAME AS ABOVE SAME AS ABOVE
	+ 15.8 %		+05.5 %		+22.2 % ceiling						

TABLE 19: RECTANGLE

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N = 19		N = 18		N = 18		N = 12		N = 10		
	E		C		E		E		C		
cognizing rectangle (CT-2) Chance = 25%	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(3) 29·30
	41.2%	35.3%	27.8%	33.3%	27.8%	47.4%	16.7%	50.0%	40.0%	20.0%	
	-05.9%		+05.5%		+19.6%		+33.3%		-20.0%		
	E		C		E		E		C		
aming rectangle (CT-6)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	17.6%	11.8%	00.0%	11.1%	55.6%	36.8%	60.0%	68.3%	00.0%	20.0%	(3) 29·30
	-05.8%		+11.1%		-18.8%		+08.3%		+20.0%		
	E		C		E		E		C		
atching rectangles (CT-3) (Chance - 25%)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	63.2%	89.5%	81.3%	81.3%	100.0%	83.3%	100.0%	100.0%	100.0%	100.0%	(3) 29·30
	+26.3%		00.0%		-16.7%		ceiling		ceiling		
	E		C		E		E		C		
ouping rectangular objects. (CT-9) Chance = 25%	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	21.1%	21.1%	50.0%	16.7%	33.3%	38.9%					(3) 29·30
	00.0%		-33.3%		+05.6%						

TABLE 20. SQUARE

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N = 19		N = 18		N = 18						
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
ouping Squares (CT-1) CHANCE = 25%	68.4%	57.9%	55.5%	66.7%	66.8%	88.9%					(1) 270-302 (1) 32.33
	-10.5%		+11.2%		+22.2%						
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
RTING Squares (CT-23) CHANCE = 25%	42.1%	42.1%	44.4%	66.7%	61.1%	94.4%					SAME AS ABOVE SAME AS ABOVE
	00.0%		+22.3%		+33.3%						
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE 21. TRIANGLE

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N = 19 E		N = 18 C		N = 18 E		N = 12 E		N = 10 C		
AMING △ (FT-7)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 273 - 303
	11.8%	35.3%	38.9%	38.9%	50.0%	84.2%	33.3%	75.0%	40.0%	50.0%	(1) 32 · 33 (2) 28 · 29 · 30
	+23.5%		00.0%		+34.2%		+41.7%		+10.0%		(5) 11 · 12
	E		C		E		E		C		
AMING ◺ (FT-5)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 33
	23.5%	35.3%	38.9%	44.4%	66.7%	84.2%	41.7%	58.3%	50.0%	50.0%	
	+11.8%		+05.5%		+17.5%		+16.6%		00.0%		
	E		C		E		E		C		
COGNIZING △ (FT-3) CHANCE = 25%	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 273 - 303
	41.2%	52.9%	55.5%	83.3%	83.3%	84.2%	50.0%	66.7%	90.0%	60.0%	(1) 32 · 33 (2) 28 · 29 · 30
	+11.7%		+27.8%		+00.9%		+16.7%		-30.0%		(5) 11 · 12
	E		C		E		E		C		
ECOGNIZING ◺ (FT-4) CHANCE = 25%	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 33
	41.2%	52.9%	55.5%	72.2%	72.2%	79.0%	75.0%	66.7%	50.0%	50.0%	
	+11.7%		+16.7%		+6.8%		-08.3%		00.0%		

TABLE 22. TRIANGLE

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19 E		N=12 C		N=18 E		N=12 E		N=10 C		
ATCHING △ (CT-5) CHANCE = 25%	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 270 - 302 (1) 32.33 (2) 28.29.30 (5) 11.12
	58.0%	78.9%	50.0%	62.5%	88.9%	88.9%	66.7%	91.7%	80.0%	90.0%	
	+20.9%		+12.5%		00.0%		+25.0%		+10.0%		
	E		C		E		E		C		
ROUPING TRIANGULAR BJECTS (CT-22) CHANCE = 25%	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	26.3%	31.6%	27.8%	44.4%	61.1%	72.2%					
	+05.3%		+16.6%		+11.1%						
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE 25. SORTING BY FORM

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
ORTING O, Δ, □ (SOLID OBJECTS) RANGE = 0-3	N = 19		N = 18				N = 12		N = 10		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
$\bar{x}$	1.94	2.33	1.72	2.28			2.67	3.00	2.50	2.70	
$\bar{x}$ gain	+0.39		+0.56				ceiling		+0.20		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE 24. KNOWLEDGE OF ANIMALS

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19		N=18		N=18		N=12		N=10		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
ITTEN NAMING (B)	94.7%	100.0%	88.3%	100.0%	100.0%	100.0%	100.0%	100.0%	90.0%	90.0%	(2) 36 (3) 15.16
	ceiling		ceiling		ceiling		ceiling		ceiling		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
ITTEN RECOGNITION (B) Chance = 25%	84.2%	84.2%	88.9%	100.0%	94.4%	94.4%	100.0%	100%	80.0%	90.0%	(2) 36 (3) 15.16
	00.0%		ceiling		00.0%		ceiling		10.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
BIT NAMING (B)	31.6%	52.6%	33.3%	44.4%	100.0%	100.0%	50.0%	91.7%	80.0%	80.0%	(3) 34
	+ 21.0%		+11.1%		ceiling		+41.7%		00.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
BBIT RECOGNITION (B) Chance = 25%	63.2%	89.5%	61.1%	94.4%	94.4%	94.4%	100.0%	100.0%	80.0%	80.0%	(3) 34
	+26.3%		+33.3%		00.0%		ceiling		00.0%		

TABLE 25. KNOWLEDGE OF ANIMALS

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19 E		N=18 C		N=18 E		N=12 E		N=10 C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
EAR NAMING (PS)	10.6%	15.3%	16.7%	27.8%	61.1%	83.3%	33.3%	41.7%	20.0%	10.0%	(1) 119-132 (1) 20
	-05.3%		-11.1%		+22.2%		+08.4%		-10.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
EGR RECOGNITION (PS) Chance = 25%	42.1%	78.9%	72.2%	83.3%	77.8%	83.3%	83.3%	75.0%	80.0%	80.0%	(1) 119-132 (1) 20
	+36.8%		+ 11.1%		+05.6%		-08.3%		00.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
EAR NAMING (PS)	52.6%	68.4%	44.4%	50.0%	100.0%	94.4%	75.0%	91.7%	50.0%	70.0%	(1) 329-333 (4) 339-353 311-313 (1) 39 (4) 37-38
	+15.8%		+05.6%		-05.6%		+16.7%		-10.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
EAR RECOGNITION (PS) Chance = 25%	84.2%	84.2%	72.2%	88.9%	58.9%	94.4%	100.0%	100.0%	80.0%	70.0%	(1) 329-333 (4) 337-359 311-313 (1) 39 (4) 37-38
	00.0%		+ 16.7%		+05.6%		ceiling		-10.0%		

TABLE 26. KNOWLEDGE OF ANIMALS

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19 E		N=18 C		N=18 E		N=12 E		N=10 C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
rd Naming (PS) Post-test only		05.3%		00.0%		33.3%		00.0%		00.0%	(3) 5 (5) 16·17·18
	E		C		E		E		C		
t does a cat drink? (PS)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(3) 15
	57.9%	73.7%	55.6%	72.2%	77.8%	83.3%	66.6%	75.0%	60.0%	80.0%	
	+15.8%		+16.6%		+05.5%		+08.4%		+20.0%		
	E		C		E		E		C		
ere does milk come from? (PS)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(3) 16
	10.5%	15.8%	05.5%	22.2%	33.3%	77.8%	50.0%	50.0%	33.3%	33.3%	
	+05.3%		+16.7%		+44.5%		00.0%		00.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE 27. TRANSPORTATION

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N = 19 E		N = 18 C		N = 18 E		N = 12 E		N = 10 C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
LABELLING BOAT (PS)	73.7%	68.4%	83.3%	83.3%	100.0%	100.0%	75.0%	83.3%	90.0%	70.0%	(1) 199-201 (1) 28-A
	-05.3%		00.0%		ceiling		+08.3%		00.0%		
	E		C		E		E		C		
WHERE BOAT TRAVELS (PS) CHANCE = 25%	73.7%	78.9%	77.7%	77.7%	94.4%	94.4%	75.0%	83.3%	100.0%	100.0%	(1) 199-201 (1) 28-A
	+05.2%		00.0%		00.0%		+08.3%		ceiling		
	E		C		E		E		C		
LABELLING CAR (PS)	94.7%	94.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	00.0%		ceiling		ceiling		ceiling		ceiling		
	E		C		E		E		C		
WHERE CAR TRAVELS CHANCE = 25%	36.8%	47.4%	22.2%	50.0%	88.9%	94.4%	58.3%	58.3%	40.0%	60.0%	
	+10.6%		+27.8%		+05.5%		00.0%		+20.0%		

TABLE 27 TRANSPORTATION

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19 E		N=18 C		N=18 E		N = 12 E		N = 10 C		
LABELING TRAIN (FS)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	63.2%	68.4%	61.1%	72.2%	100.0%	100.0%	75.0%	66.7%	90.0%	100.0%	
	+05.2%		+11.1%		ceiling		-08.3%		ceiling		
	E		C		E		E		C		
WHERE TRAIN TRAVELS (FS) CHANCE = 25%	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
	78.9%	73.7%	61.1%	66.7%	94.4%	100.0%	83.3%	75.0%	70.0%	80.0%	
	-05.2%		+05.6%		ceiling		-08.3%		+10.0%		
	E		C		E		E		C		(1) 262-268
LABELING PLANE (FS)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(3) 23
	89.5%	94.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	(4) 35
	+05.2%		ceiling		ceiling		ceiling		ceiling		
	E		C		E		E		C		(1) 262-268
WHERE PLANE TRAVELS (FS) CHANCE = 25%	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(3) 23
	63.2%	89.5%	73.2%	83.3%	94.4%	100.0%	75.0%	91.7%	80.0%	100.0%	(4) 35
	+26.3%		+11.1%		ceiling		+16.7%		ceiling		

TABLE 29. COMMON UTENSILS (HAMMER)

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19 E		N=18 C		N=18 E		N=12 E		N=10 C		
NAMING HAMMER (PS)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 137-167 (1) 22
	84.2%	78.9%	94.4%	88.9%	94.4%	100.0%	83.3%	83.3%	60.0%	60.0%	
	-05.3%		-05.5%		ceiling		00.0%		00.0%		
	E		C		E		E		C		
GIVING USE (PS)	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 137-167 (1) 22
	73.7%	76.5%	62.5%	87.5%	88.9%	100.0%	83.3%	91.7%	100.0%	90.0%	
	+02.8%		+25.0%		ceiling		+08.4%		-10.0%		
	E		C		E		E		C		
RECOGNIZING USE (PS) CHANCE = 25%	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(1) 137-167 (1) 22
	52.6%	68.4%	61.1%	77.8%	94.4%	100.0%	66.7%	75.0%	70.0%	60.0%	
	+15.8%		+16.7%		+05.6%		+08.3%		-10.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE 30. COMMON UTENSILS (UMBRELLA)

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N = 19 E		N = 18 C		N = 18 E		N = 12 E		N = 10 C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
NAMING UMBRELLA (PS)	84.2%	89.5%	83.3%	83.3%	100.0%	100.0%	100.0%	100.0%	80.0%	100.0%	(5) 36
	+05.3%		00.0%		CEILING		CEILING		+20.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
GIVING USE (PS)	83.3%	89.5%	75.0%	93.8%	88.9%	100.0%	83.3%	100.0%	90.0%	100.0%	(5) 36
	+06.2%		+18.8%		+11.1%		+16.6%		+10.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
RECOGNIZING USE (PS)	84.2%	89.5%	88.9%	100.0%	100.0%	88.9%	100.0%	91.7%	80.0%	90.0%	(5) 36
	+05.3%		+11.1%		-11.1%		-08.3%		+10.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE 31. COMMON UTENSILS (FISHING POLE)

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
	N=19 E		N=18 C		N=18 E		N=12 E		N=10 C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
NAMING FISHING POLE (PS)	63.2%	73.7%	61.1%	61.1%	94.4%	100.0%	25.0%	30.0%	30.0%	50.0%	(3) 23
	+10.5%		00.0%		+05.6%		+05.0%		+20.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
GIVING USE (PS)	78.9%	64.7%	56.3%	56.3%	94.4%	100.0%	41.7%	66.7%	50.0%	70.0%	(3) 23
	-14.2%		00.0%		+05.6%		+25.0%		+20.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	
RECOGNIZING USE (FS)	59.5%	84.2%	66.7%	83.3%	100.0%	100.0%	83.3%	83.3%	100.0%	80.0%	(3) 23
	-05.3%		+16.6%		00.0%		00.0%		-20.0%		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

TABLE 32 COMMON UTENSILS (LIGHT BULB)

	PHILADELPHIA DISADVANTAGED				PHILADELPHIA MIDDLE CLASS		NEW YORK DAY CARE				OBSERVATIONS
NAMING LIGHTBULB (PS)	N=19 E		N=18 C		N=18 E		N=12 E		N=10 C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(2) 17
	100.0%	100.0%	100.0%	100.0%	88.9 %	83.3%	100.0%	100.0%	100.0%	100.0%	
	ceiling		ceiling		- 05.6%		ceiling		Ceiling		
GIVING USE (PS)	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(2) 17
	89.5%	88.2%	75.0%	75.0%	94.4%	83.3%	75.0%	75.0%	100.0%	80.0%	
	-01.3 %		00.0 %		-11.1 %		00.0 %		-20.0 %		
RECOGNIZING USE (PS)	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	(2) 17
	63.2%	57.9%	61.1%	72.7%	94.4%	100.0%	75.0%	83.3%	60.0%	80.0%	
	-05.3 %		+11.6%		+ 05.6%		+ 08.3%		+ 20.0 %		
	E		C		E		E		C		
	PRE	POST	PRE	POST	PRE	POST	PRE	POST	PRE	POST	

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INTERPRETIVE GUIDELINES

The data in which this report is based were gathered under a variety of conditions. In order to make the results more understandable, certain things about these data need to be clarified. The following points should be borne in mind while reading this report.

The Philadelphia Disadvantaged Study

1. Procurement of Subjects - The children in the disadvantaged sample were obtained by community coordinators. Each of ten coordinators provided five black children not yet in school whose mothers were willing to participate in this study. Each child was to have been between the ages of four and five during the time the study was conducted.

2. Prestest - All children in the disadvantaged sample were pretested during the 16th, 17th and 18th of July. Important problems arose during the pretest. Temperatures were high, above 90° in Philadelphia at this time. Many of the mothers had drawn the shades and kept the lights off to retain the coolness of the evening. Needless to say, the performance of children on tests administered under these conditions is questionable. The children were often restless and inattentive.

The tests themselves brought new problems. One of the purposes of the Philadelphia testing was to provide information on the tests so that they could be made better. These tests in many instances proved to be too long and too difficult for the children. Often the instructions weren't clear.

Several of the testors used in Philadelphia had little experience in administering tests to young children.

These conditions, taken together, often resulted in frustrated children, frustrated testors and questionable data.

3. Treatment (Viewing "Sesame Street" or viewing "I Love Lucy") - On the basis of performance on selected pretest items, the children were divided into two groups. In one group the mothers were asked to have the children watch Sesame Street on channel 33 (UHF). The other group was to watch the regularly scheduled programs on channel 10 (VHF). Reception on both channels was to have been checked out earlier by community coordinators. Only children with television sets receiving these channels well were to have been selected for the study.

In order to measure the effectiveness of the five test shows, it was important to establish two treatments - Viewing Sesame Street and Viewing something else. One could then look at differences in test performance by the groups and attribute these differences to what they watched on television. How well these treatments were established is, therefore, of vital importance in interpreting the data.

The treatments were poorly established. On the first day of Sesame Street, Apollo 11 landed on the moon. Some children preferred the astronauts to Sesame Street and missed Show 1. Some mothers forgot to have the children watch. One television was stolen and one reclaimed. On the other hand, some children weren't supposed to be watching 'Sesame Street'. When their mothers turned on channel 10 and saw "I Love Lucy", several felt that a mistake had been made. They checked the other channels and found 'Sesame Street'. Other problems also arose. On the last day of the test shows, the examiners went to the homes while the program was still on. Many cases of poor reception were reported. Most often, there were other children in the room. Numerous distractions were constantly present. Instead of the clean treatments we had hoped for, we found an experimental group who, if they had viewed the program at all, often viewed under the poorest conditions. We also found a control group who sometimes had viewed the program.

In summary, the results from the disadvantaged study must not be taken as gospel. Many inconsistencies appear in these data as a result of the problems discussed above.

The Philadelphia Middle-Class Study

This study was conducted mainly for the purpose of providing information on the tests. In this study, twenty white children from a middle-class neighborhood were selected by coomunity coordinators.

Each of these children was pretested. Conditions in this neighborhood were not the same as in the disadvantaged sample. The homes were cooler, there were less distractions present during testing and the children were more familiar with books and pictures, the materials used in testing.

All children in this sample were reported by their mothers to have watched all five shows.

The problem in interpreting these data is that there was no control group -- no similar group that did not view the shows to serve as a basis of comparison.

It is possible to look at gains the children made from pretest (before viewing) to posttest (after viewing). Unfortunately, children often perform better the second time they are given a test. They are more familiar with the tests and the examiners. Often they learn from the tests themselves. All these points must be considered when interpreting gains from one testing to another.

The New York Day Care Study

Twenty-four children between the ages of four and five were tested in two day care centers. These children received a shortened version of the ETS battery and the Program Specific Test. Half of the children were randomly selected to view the test shows. They viewed the shows in groups over video tape playback monitors. The groups varied in size depending on factors in the center on a given day. While the children viewed the shows trained observers recorded group reactions to each segment of each show.

This was, by far, the best controlled of the three studies. Reception was always good and researchers could verify that a child had, in fact, viewed the programs.

The Distractor Study

Ten four year olds in a day care center watched Show 1 and Show 4 under the standard distractor conditions. One problem with this study was the positioning of the observers. One observer sat on each side of the child. In this situation, the child may have felt less confortable about looking away from the TV screen.

Since all the data on the test shows was gathered under the same conditions, however, points on the graphs can still be compared.

LETTERS OF THE ALPHABET

Reciting the Alphabet

In both the disadvantaged and middle-class viewing groups from Philadelphia we find the gain of about one letter. There is a difference, however, in where these children started. Before seeing the shows, the average disadvantaged child recited to about C or D, afterwards to D or E. The middle-class child was already up to K before the shows and L afterwards.

Children who viewed the shows in New York Day Care centers showed the greatest gain in reciting the alphabet. Although, the average child could recite only slightly farther than the child from the disadvantaged group before he viewed the shows, he progressed almost three letters after seeing five shows.

Looking at the Observed Reactions of the children in the day care centers we can get an idea of which segments dealing with recitation of the alphabet they responded to the most.

"Egg Chant" appeared twice in the shows. See Observed Reactions (or) 3:15 and 5:16 (Show 3: Segment 15 and Show 5: Segment 16). During this film segment there was little reaction to the alphabet recitation, although the children did like the lizzard and danced along with him. In "Alphabet Fishing," the children didn't seem to understand what was going on. This segment seemed confusing to the children. (See OR 3:3). The alphabet was also recited in the opening and closing of the "Man from Alphabet" which appeared on each show. The children seemed to enjoy this opening and a few of the children learned the opening song. (See OR 1:47, 2:32, 3:11, 4:41 and 5:34). During the "Sky Writing" segment the children were engrossed with the plan but made no mention of the letters. (See OR 4:35). During the "Listen My Brother" Group's version of the alphabet almost all children danced. (See OR 1:18).

The two segments eliciting the greatest response from the children were Susan's singing the alphabet song and James Earl Jones reciting the alphabet. Susan sang the alphabet song twice. The first time she sang, eight out of 13 children sang with her, the second time 10 of the 13 sang along (see OR 4:35). One reason may have been that the children knew the song. This is the same arrangement as they saw earlier, however, in the animated segment, "Alphabet Song." This animated segment appeared twice in the five shows (see OR 1:17 and 2:7) and there was very little responding from the viewers. Some children seemed upset at the frequent interruptions. This might be what kept them from singing along.

During James Earl Jones' recitation of the alphabet, 12 of 13 children tried to say the alphabet along with him. Children were extremely engrossed in this segment and several even argued about whether he was right or not (See OR 4:34).

One other possibility for the high frequency of responding is that both of these successful segments appeared in Show 4. The children had already seen the three preceeding shows which included eight recitations of the alphabet in various forms. They may have felt more familiar with the alphabet by this time and more comfortable in reciting it aloud.

In summary, there is evidence for gain in reciting the alphabet by all experimental groups. The film segments most successful in getting the children to recite were Susan's alphabet song and James Earl Jones' recitation of the alphabet.

The Letter D

There is evidence of a gain in the ability to name both D and d in the disadvantaged and middle-class Philadelphia groups. This result was not replicated in the day care study. Little gain was found at other levels of dealing with D, except for a small gain in making D by the Philadelphia middle-class sample.

These results are surprising when one considers the heavy treatment D received in the first show. Three commercials were used to teach D: (1) the D commercial, (2) the alphabit; D - Dudley, and (3) the balloon bit; D-Dog.

The D-commercial appeared three times in the first show. The reactions of children in day care centers indicate that with repetition the children were beginning to learn D (see OR 1:8, 1:10 and 1:12). This commercial, though it seemed to be working, may not have shown enough times for the children to learn the letter.

D - Dudley was also shown three times, twice in Show 1 and again in Show 5. Only in the last exposure did the children begin to react to the letter "D" (see OR 1:4, 1:24 and 5:23). In an earlier study D - Dudley was shown to be less effective than similar material on other letters (F - Fly and the J - commercial, for example).

D - Dog appeared once in Show 1 and again in Show 4. There was little response to this balloon bit by the day care children. (See OR 1:28 and 4:4).

The children were not responsive to the segments on Sesame Street that dealt with D. (See OR 1:3, 1:5, 1:21, and 1:23).

Both the Superman - D and the Muppet TV repair segments drew a good deal of responding by the children. Few of the reactions were to the letter D, however. This may have been because the muppets didn't say D. The children were engrossed with the actions of Superman or the muppets in these segments. (See OR 1:15 and 5:24).

The segments most successful in getting the children to respond directly to D were the magician segments. Here the children's attention was drawn to the letter. (See OR 1:14 and 1:16).

There is another possible explanation for the small gain observed on the letter D. Segments dealing with this letter appeared heavily only in the first show. Children may have forgotten what they learned over the four days following Show 1 or the introduction of new letters may have confused them.

In summary, there is evidence for gain in naming "D" and "d" in the Philadelphia Study. There is no substantial evidence for gain at other levels of dealing with D. The segments most successful in eliciting responses to the letter were the magician segments. The data suggests that with additional repetitions the D - commercial may be an effective learning treatment.

The Letter R

Small but consistent gains in naming and recognizing R were found in all three experimental groups. In dealing with r, however, there is evidence of learning in the non-viewing children in the day care center. An increase of 30% in naming r, an increase of 10% in recognizing r and an increase of 40% in matching r to R suggest that the letter might have been taught in the centers.

The R - commercial was presented five times in Show 3 and twice in Show 4. By the fourth repetition, day care children began to mention the letter R. At the beginning of Show 4, one child asked if they would be seeing "R" again. The first exposure of the R - commercial on Show 4 drew a good deal of response from the children. (See OR 3:7, 3:9, 3:14, 3:24, 3:35, 4:21 and 4:29). The responsiveness of the children to the R - commercial when it appeared on Show 4 suggests that they had become familiar with it during the preceeding show and were surprised and pleased to see it again. Three segments on Sesame Street dealt with the letter R or r: (1) skywriter segment, (2) the Randi-Rabbit segment, and (3) the R-Game. In each of these segments, the children were attentive and responsive but their responses were not directed to the letter. (See OR

3:23, 3:34 and 4:30). The segment where Randi pulled the rabbit from his hat drew a great of response. The children seemed to like this very much. The letter R was not an intricate part of the sketch, however. It seemed to be added as an afterthought. The children's reponses were all directed toward the rabbit and frequent mention of the word rabbit was made but never the letter R.

The second magician segment where Randi did a trick with the letter R did draw the attention directly to the letter. In two of the four viewing grojps children mentioned the letter (See OR 4:22). In the Muppet TV Repair segment, the muppets repeated the R sound. This was very successful in getting the children to voice the sound. (See OR 5:24).

In summary, small but consistent gains were found in naming and recognizing R. The children weren't very responsive to the R - commercial, but with repetition it did begin to teach the letter.

The Letter W

Greater gains were made an items dealing with W than on any other items in the testing. There were substantial gains at every level of knowledge of W except making the letter. (See tables 6, 7 and 8 in the Results Chapter).

Wanda, the W - commercial, appeared eight times in the five shows; five times in Show 2, twice in Show 4 and once in Show 5. On the first and second exposures to the commercial, most of the day care viewing groups watched in a zombie-like fashion. (See OR 2:9 and 2:11). This is not an unusual response. Children often react this way when watching more complicated segments. It seems as though they are trying to eliminate distractors. By the third exposure, the children were beginning to respond to the commercial. (See Or 2:16). The responses of the children on the fourth and fifth repetition indicate that they had a good idea what was going on and were beginning to get bored with the segment. (See OR 2:21 and 2:27). When they did see the commercial again in Show 4, their interest was renewed. There was a good deal of discussion about the witch and the letter W was mentioned several times. (See OR 4:5 and 4:23). Wanda appeared for the last time in Show 5 and the children seemed happy to see her again. There was a good deal of responding and mention of the letter W. (See OR 5:31).

Early in Show 2, the W was introduced by the Muppets, Ernie and Bert. During this introduction the children, though attentive, made no responses. (See OR 2:8 and 2:10). This is not surprising because few children knew what a W was at this time. At the end of Show 2, Susan plays a game with the children. Three W's and a three are presented on a board and the children must find the one that doesn't belong. Ten of the thirteen children in the day care center played with Susan. They went up to the screen and pointed to the one they felt didn't belong there. (See OR 2:30). In the day care center, 83.3% of the children who viewed the program could solve this problem on posttest and where only 60% of those who did not view solved it successfully. This technique encouraged the children to participate. It might have been improved by focusing longer. Moving from figure to figure required the children to hold a visual image in their head. If the entire board were shown and Susan had taken a triangle moving it from frame to frame, she might have been able to teach children how to solve the problem.

The two Kermit and W segments appeared on Show 4. The children were very responsive to these segments. (See OR 4:28 and 4:32). The mention of W by the children showed a level of familiarity with the letter. This familiarity did not exist earlier, in Show 2, in the segments with Ernie and Bert. When these same muppets appear in Show 5, in the painting segment, the children were much more responsive. (See OR 5:33). The confusion that exists for the child among letters is apparent by their reactions to this segment. The letter was called a "J", a "B" and a "W" by different children.

In summary, the methods used to teach W were very successful. The heavy and concentrated exposure to the Wanda commercial seems to have been an important factor in the children's learning of this letter.

BODY PARTS

There were no gains in any of the experimental groups in naming, recognizing or identifying the functions of body parts. The lack of measureable gains is not surprising. Only four segments in the five test shows dealt with body parts, and only one of these four treated body functions. Scores were very high on the Body Parts pretest. This would also make measureable gain difficult to obtain.

Children in the day care centers were interested in Solomon Grundy, but their comments generally dealt with baths. (See OR 2:14). During the song, "Dry Bones", the children either danced or imitated Susan's actions. (See OR 5:25). They enjoyed this segment. If Susan had pointed out clearly the body parts she was singing about, the children might have learned their labels. A general shake of the foot when talking about leg bone, ankle bone and foot bone is not clear enough for the child to understand what the specific body part is.

When Jennifer, the artist, was shown, the children were either confused about what was being drawn or inattentive to the segments. (See OR 5:32).

The only segment that dealt with body functions was the "Body Parts" film, which was enjoyed and responded to by the children. The film dealt only with arms and hands, however, so substantial gains should not be expected.

In summary, the lack of improvement on the Body Parts test seems to reflect the light treatment of this topic in the test shows. Scores on this test were fairly high, however, making gain difficult to achieve.

RELATIONAL CONCEPTS

Five relational terms were treated in the test shows: around, under, over, through, bigger and biggest. The only positive gains were on items testing for knowledge of around.

The film, "Over, Under and Around" appeared twice in the test shows. The use of children and their voices was enjoyed by the day care groups (See OR 4:36 and 5:29). For the most part they empathized with the action in the film, but they had a difficult time differentiating the concept being treated from all the other action. 'Around' was the first concept treated and the confusing elements in the picture were less than for 'over' and 'through' which might account for the slight gains in this concept. The end of the film where the children were summarizing all three concepts by going around under and over each other, only confused the children.

'Through' was only treated once in the five shows, with a very short segment. About half of the children in the Day Care Centers were attentive to the segment and laughed when the paint spilled onto the girl. (See OR 3:30). The concept was not given adequate treatment for measurable results to be expected.

'Bigger' and 'biggest' were treated three different times in the test shows. It is to be noted that both experimental and control children were at or near the ceiling level in recognizing an instance of 'bigger' or 'biggest'. In the Magician segment, one group of day care children repeated the words after Randi, the other groups were attentive or responded to the D but not the relational concept. (See OR 1:14).

In the story What is Big read by Gordon, of the attentive children, only one child made a response to the relational concept, the rest responded to the animals. (See OR 2:12). The children watched the James Earl Jones bit, but didn't understand it. (See OR 5:26). In this segment, methods used to define the concept did not make it clear.

In summary, relational concepts received a light treatment in the five test shows. Most segments that did treat the concepts were too busy -- there was too much going on for the children to see clearly what the concept was. More care needs to be taken in a clear definition of these concepts for the children.

NUMBER

Counting

The gains in counting from one to ten were most pronounced in the Philadelphia disadvantaged group. Here children improved almost two full numbers. Gains were also made in the other experimental groups but they were not as marked. In the other groups, however, more children could already count beyond ten. Thus, the amount of growth they could show was limited. Counting was treated in the test shows in five different kinds of film segments: (1) "Jazz 2", (2) "Jazz 3", (3) the LMB Counting Song, (4) the elevator sequence and (5) Eggs and Cookie. The heaviest treatment of counting appeared in Show 3.

In "Jazz 2" and "Jazz 3", counting occurred at the beginning and end. These segments appeared eight times in the five shows. Children in day care groups enjoyed these segments. In Show 3, they usually danced when these segments were on. (See OR 1:35, 1:40, 2:23, 3:17, 3:22 and 3:32). By the time they appeared on Show 4, the children had begun to react to the specific film segments and do a little less dancing. (See OR 4:9 and 4:11). Two groups counted with the introduction and conclusion. One child commented that eleven was next. This attention to the counting section might have been a reaction to the fact that counting occurred several times in the preceeding show in a variety of segments. Because of the many repetitions, the children may have begun to sort out the elements of the Jazz numbers and respond accordingly. (See OR 1:35, 1:40, 2:23, 3:17, 3:22, 3:32, 4:9 and 4:11).

When the Listen My Brother Group did the counting song, the children enjoyed it and danced. (See OR 3:25). The rhythm of the music was liked, but as with the first few Jazz number segments, the numbers were not differentiated. A segment where the numbers were counted slowly and distinctly did not occur until half way through Show 3. If this had come earlier, the children might have been able to respond to the faster LMB and Jazz counting as they began to do in Show 4.

All the children were very attentive to the elevator sequence and most laughed at the end when the elevator fell back down. (See OR 3:27). This seemed to be an interesting, slow paced segment.

All the groups were attentive to "Eggs and Cookie". (See OR 3:37). Three of the groups counted with the child up to nine, when the cookie appeared. They then just listened and watched intently for the rest of the segment. Participation in the counting was by far the greatest in this segment and interest was very high.

"One, Two, Erase Your Shoe" appeared twice; once in Show 4 and one in Show 5. There were no reactions to this segment. All children watched in a zombie-like fashion. (See OR 4:3, and 5:6).

In summary, the slower paced segments elicited counting in the children. The Jazz numbers, after repetition, began to work. There was improvement in counting in all experimental groups, but this improvement was greatest in the disadvantaged sample.

Knowledge of two

Most of the improvement in knowledge of two occurred in the day care viewing groups. These children showed gains in labelling the numeral, recognizing and instance of twoness (Where are there two ladybugs, etc.?) and in counting out two objects. There were gains at some levels in the Philadelphia samples but these were not as marked nor consistent.

Two films dealing with "two" were repeated heavily in the five shows: Jazz #2 and Henson #2. Jazz #2 appeared twice in Show 1 and three times in Show 3. By the second repetition, children in day care were already starting to say, "two". They enjoyed this film very much, singing the song and dancing. (See OR 1:35, 1:40, 3:17, 3:22 and 3:32).

The children loved the Henson film. This film appeared eight times over the five shows. The response to this film was enthusiatic as any we have ever seen children make. Each time the film appeared, the children were full of comment and very attentive. (See OR 1:37, 1:42, 3:18, 3:26, 3:38, 4:39 and 5:8). They would shout out "two tigers", etc., as the film went along.

There was one problem in the Henson film. When the objects were counted out, they were counted out as ONE - TWO - ZING! The children understood this as 1 - 2 - 3.

The film presenting animal pairs in Show 1 was also very successful. The children enjoyed this film and responded heavily to it. (See OR 1:39). The muppet sketch with the two noses also drew comment from the groups. (See OR 1:41).

Both the Henson "two" and "Jazz #2" dealt mainly with presenting instances of twoness (two turtles, two elevator doors, etc.). In the Henson film, the objects are then counted out (two turtles - one, two.) The largest gains were in recognizing instances of twoness and counting out two objects. This improvement reflected the emphases of the films.

Rarely did the numeral appear for any length of time. It is, therefore, not surprising that gains in labelling the numeral were small and there were no positive gains in recognition of the numeral.

In summary, both the Jazz #2 and Henson #2 films were very effective in eliciting responses from the children. Improvement on items testing knowledge of "two" reflect the emphasis of these films. The major gains were in recognizing an instance of twoness and in counting out two objects.

Knowledge of three

There were small gains in labelling the numeral in both Philadelphia groups. There was also some improvement in recognizing the numeral but it did not exceed chance level. Small but consistent gains were found in the day care sample in recognizing and instance of threeness.

The major treatment of three was very similar to that of two. Two films, Jazz #3 and Henson #3, were repeated. They were not shown as often as the corresponding films on two.

Jazz #3 was repeated only three times in the five shows. The children did not respond to the film when it appeared. There was also less repetition of the Henson #3 film. It was shown four times in the five shows.

In both these films the children's reactions point out that they were confusing two and three. (See OR 2:3, 2:23, and 2:25).

In summary, the children did not show the degree of improvement on "three" that they showed on "two". Two possible explanations were suggested: (1) three was not treated as heavily in the five test shows, and (2) the children appeared to be confusing "two" and "three".

FORMS

Four forms were treated in the five test shows: (1) circle, (2) rectangle, (3) square and (4) triangle. These are discussed below:

Circle

There was evidence of improvement in naming circles and in grouping round objects. For the most part, performance was high on items dealing with circle so there was often little room for improvement. An interesting result was obtained on the naming of circle. During pre-test little more than 11% of the Philadelphia disadvantaged sample knew the name of this form. About 50% of the middle-class sample knew the name. Both these groups showed improvement on post-test. A higher percentage of children in day care centers knew the name on pre-test. They showed no gain after viewing the programs. This suggests that "circle" may have already been taught in the day care center.

The only film that treated this shape was "Round things" which appeared twice in the shows. (See OR 1:31 and 4:27). The name "circle" was not provided in the film itself. Susan introduced the film and talked about circles. The children were not very attentive to this segment, however. (See OR 1:30).

One other segment in the five shows dealt with circle. In Show 2 Susan played a sorting game with the children. Three triangles and a circle were presented and the children were asked to find the one that didn't belong. This was a good test item but nothing in the segment taught the children about circle.

In summary, there was little improvement on tasks dealing with circles. This reflected the light treatment of this form in the test shows.

Rectangle

The results obtained on items dealing with rectangle require some explanation. Naming and recognition of rectangles were tested on the B & B Test of Forms. On this test the children were first asked to find a rectangle in a pictorial array of four forms. They were also tested on recognition of circle and triangle. The children were then shown the same forms and asked to name them. The examiner had just been throwing around the words rectangle, circle and triangle.

In Table 19, we find gains by the control subjects in naming rectangle. This type of item is usually one that the child knows or does not know. It's hard to guess a name like rectangle if you don't know the name already. In this situation, because of the way the test was constructed, the examiner has just finished using three names for these forms -- circle, rectangle and triangle. In this way the child may get an item right by guessing.

This may account for the superior performance by control subjects on this item.

There was some evidence of learning to recognize rectangle by the day care and middle-class experimental groups.

Only two segments in the five shows dealt with rectangles. These both appeared in Show 3. The first was a segment on Sesame Street where Bobby talked about rectangles and introduced the film on rectangles. The children were not responsive to Bobby's introduction. (See OR 3:29) but most were attentive to it. They were responsive to the rectangles segment. (See OR 3:20), but did not mention the shape or form of the objects in the film. The comments of the children indicate that they were more attentive to the non-rectangular objects in the film (snow, people going backwards, man on the Beefeater's sign, etc.)

Square

Unfortunately, square was not included on the Forms test and no data is available on the naming and recognizing of square. "The triangle and the square" was along with Susan's introduction was the only treatment of Square in the shows. This film elicited a good deal of responding from the children. (See OR 1:33). It will be discussed further under triangles.

Triangle

There were substantial gains in naming triangle by all experimental groups. The triangle was introduced to the children by Susan on Show 1. In the day care center, most children were inattentive during this introduction. (See OR 1:32). The story of the triangle and the square came next. This film was beautifully done. The triangle and the square appeared in isolation, without a noisy background. The children could see these forms alone, see how they were made and could compare the two. The names of these forms were repeated often and the reactions of the children indicate that they were learning the names. (See OR 1:33).

On Show 2, triangle was treated in three segments. In the first, Bobby was building a house. The children in the day care centers responded to this section mentioning triangle. (See OR 2:28).

"Shapes" elicited a great deal of responding from the children. This was also a very successful film. When the forms were taken one by one, the children could identify them. They often named and counted triangles as they appeared. This film also showed the children how these forms could go together to make new objects -- a sailboat, a windmill, etc. Since the film had only a musical background the children had to know the labels before they saw the shapes film. Following "the Story of the Triangle and the Square", with "shapes" was a very effective technique. (See OR 2:29 and 5:12).

Most of the day care children played the triangle game that Susan introduced in Show 2. (See OR 2:30). As was suggested earlier, the game might have been more effective if the entire board were shown for a longer period of time. A comparison figure could have been provided for the children to teach them now to solve the problem.

In summary, of the four forms treated in the shows, the greatest improvement was on triangle. Triangle received the heaviest emphasis on the five shows. Two films were particularly successful - "the Triangle and the Square" and "Shapes". Both films showed the form in isolation without a noisy background.

ANIMALS

Recognizing and Naming Animals

Five animals appeared in the test shows: (1) a kitten, (2) a rabbit, (3) a deer, (4) a bear and (5) a lizard. These animals are discussed individually below.

Kitten Naming and Recognition

A kitten was used in Show 3. The children were attentive to this segment and discussed pussycats a good deal. (See OR 3:15). Over 90% of the children in all groups could name the kitten correctly at pretest. There was little room for improvement on the naming and recognition of kitten.

Rabbit Naming and Recognition

Substantial gains in naming rabbit were found in both the disadvantaged and day care experimental groups. Middle-class children already knew rabbit at pretest. The day care group showed a gain of 41.7%. The observed reactions on these children are helpful in understanding this improvement.

On Show 3, the magician pulled the rabbit from his hat. This was very effective in gaining the attention of the children. Gordon and Randi used the word rabbit frequently in this segment. The children were very responsive and talked about the rabbit a great deal, constantly using the word. (See OR 3:34).

Deer Naming and Recognition

There was improvement on naming deer in the middle-class and day care experimental groups. The disadvantaged and middle-class experimental groups also improved on recognition of a deer. The gains, however, were not nearly as marked as on rabbit.

Deer were handled in Show 1. The word deer was only spoken twice during this segment. The children loved the film, however, and day care groups discussed the deer a great deal. (See OR 1:20).

Bear Naming and Recognition

The bear was dealt with three times in the five shows. Each time it was presented in a different context: Once they heard a story about a bear, once they saw a bear in a film clip and, once a live bear cub was used in the studio.

The variety of presentations may well account for the gains registered in bear naming (16.7% in day care and 15.8% in Philadelphia disadvantaged). Children in all groups were near the ceiling in recognition of the bear on pretest. Little gain could be expected on that item.

Lizard Naming

Few children could name the lizard in any group. Only seven children out of the total number tested (77) could name it correctly on posttested. No children could name the lizard in the day care center. This is surprising when one looks at the reactions the children made on Show 5. (See OR 5:17, 5:18 and 5:19). The children saw a lizard in a cartoon (Egg on Knee), live in the studio, and in a film clip. Although the lizard was called other names such as frog, turtle and alligator, several children used the name lizard. Perhaps, the picture used in testing wasn't similar enough to the lizard shown on the screen.

Information About Animals

Children were asked two additional questions about animals, "What does a cat drink?" and "Where do we get milk?" There was great improvement in the middle-class sample on the second question.

The children were attentive when Susan fed the kitten milk on Show 3. There was little responding to this segment, however. (See OR 3:15). The day care children were very responsive to "Hey, Cow", however, often making mention of milk coming from the cow. This did seem to surprise them and they enjoyed it. The children clearly recognized the fact that the cow was being milked so the lack of improvement on the test item is puzzling.

In summary, the children showed improvement in their ability to name and recognize the animals used on the show. They enjoyed the animal segments very much, especially the films "Baby Deer" and "Hey, Cow".

TRANSPORTATION

There were no gains in any of the viewing groups in labelling boat, train or card. Nor were there gains in identifying the medium in which they travel. Small gains were made by the Philadelphia disadvantaged group in labelling plane and identifying the medium in which it travels.

One reason for the lack of measurable gain in the transportation items is that all of the viewing groups scored very high on the pretest, particularly the Philadelphia middle-class sample who were at or near the ceiling level on all of the items.

Neither car nor train were dealt with at all in the five test shows and boat was only mentioned briefly in the story "Where the Wild Things Are". (See OR 1:28A). Thus no gains could be expected in items dealing with these vehicles. The small gains made by the Philadelphia disadvantaged experimental group on the airplane items. This can probably be attributed to the fact that an airplane was shown in Show 3 and in Show 4. (See OR 3:23 and 4:35). On both occasions the airplane was labelled by Gordon, and the children in the viewing groups also tended to label the airplane when they saw it. Both the Philadelphia middle-class group and the New York Day Care group were already at the ceiling level on these items. This accounts for the fact that there were no gains made by these groups on airplane.

COMMON UTENSILS

Knowledge of four common utensils was tested on the Program Specific test: hammer, umbrella, fishing-pole and lightbulb. All of the utensils except the fishing-pole were of central importance in the Buddy and Jim sketches.

Most children already knew the name of these utensils, leaving little room for improvement on naming or recognition. There were small gains in naming the fishing-pole, however. An interesting result was obtained when the children were asked to name the lightbulb. Every child in the day care and disadvantaged samples got this item right. The middle-class performance was not as high. A possible explanation is that the children from less prosperous homes more often see the lightbulb without a shade on it.

The small and inconsistent gains found in knowledge of the use of these utensils also reflects the high pretest performance. The children were fairly familiar with all these objects leaving little room for improvement.

The children enjoyed the Buddy and Jim sketches very much. They recognized and often anticipated the mistakes that were made. (See OR 1:22, 2:17, 3:28, and 5:36.)

In summary, the children were already very familiar with the utensils tested. This familiarity probably helped them to anticipate the mistakes made in the Buddy and Jim sketches.

SUMMARY

Four independent studies were conducted to measure the impact of five test shows of "Sesame Street". This chapter is a summary of the findings from three of these studies: (1) The Philadelphia Disadvantaged Study, (2) The Philadelphia Middle-Class Study and (3) The New York Day Care Study. Results from the fourth study, The Distractor Study, are discussed separately in Chapter VI.

The purpose of the testing was threefold: (1) to assess the educational impact of the shows relative to a set of a priori goals, (2) to evaluate the quality of entertainment of the shows as compared to other programs presently available for children, and (3) to pilot a test battery designed by ETS to measure achievement in a set of define goal areas.

THE EDUCATIONAL IMPACT OF THE FIVE TEST SHOWS

Children who viewed the test shows exhibited improvement from pre to posttesting relative to their respective control groups. This improvement was found, on various measures, in each of the three studies conducted. However, when improvement did occur it was not uniform across all goal areas, nor was it haphazard. Several factors appear to be related to the differential gains that were obtained from one tested goal area to the next. These are listed and discussed immediately below.

The Degree of Emphasis of the Goal Area in the Programming

Degree of emphasis refers to the amount of time devoted to a goal in the five shows. In general, children tended to improve more on goals that were represented in a greater number of show segments. For example, letters were heavily emphasized in the test shows and gains were found on many of the items dealing with knowledge of letters. Relational concepts were given a much lighter emphasis in the shows and only negligible gains were obtained.

The Manner in Which Subject Matter is Presented

Several programming variables were found to be important determinants of how much the child got out of a given segment. These include simplicity, meaningfulness, repetition and variety of approaches.

Simplicity - Children showed greater gains on subjects that were presented in a clear and simple manner. In the area of geometric forms, two segments dealing with triangles are good examples of the value of simplicity -- "The Story of the Triangle and the Square", and "Shapes". In these segments, the triangle often appeared in isolation and in sharp contrast with the background. Children showed marked improvement on items dealing with triangle. Contrast this approach with two other segments treating geometric forms -- "Round things", and "Rectangles". Here, the forms appeared in a "noisy" background, as parts of common objects. The children saw windows and clocks, etc. They showed little improvement on items dealing with these forms.

Meaningfulness - In general, there was greater improvement on subjects treated in segments that were otherwise judged to be understandable to the children. Two letter commercials serve as good contrasting examples of this variable. The W commercial was well understood by the children. The story of Wanda the Witch was simple and had meaning for them. On the other hand, the R commercial was very confusing. Many things happened to the robber in a disjointed fashion, ending with his going down the drain. The children were unable to follow the story behind this commercial. Marked improvement was found on items dealing with "W". There were only small gains, however, on items dealing with "R".

Repetition - Repetition of the same film segment was used to treat letters and numbers. Observations on children viewing the show indicate that children begin making more overt responses to a segment as it is repeated. These responses reflect a greater understanding of the segment. "Wanda the Witch" was repeated heavily in the test shows and marked improvement was found on test items dealing with "W". Repetition was not effective across the board, however. What is being repeated is an important factor in the effectiveness of this technique.

Variety of Approaches - The number of ways in which a subject was treated was an important factor in learning. In both the "Jazz Numbers" and "Henson Numbers", a given number of objects were presented on the seven while the appropriate number ("two" or "three") was spoken or sung. In testing, these exact same type of items were the items that showed gain. There was no gain in labelling numerals, a skill not developed using this approach. On the other hand, a variety of approaches was used to teach the letter "W", and improvements in performance were found at almost every level of understanding of this letter.

THE ENTERTAINMENT VALUE OF THE SHOWS

The Distractor Study is the major source of information on how entertaining the children found the five test shows. This study is discussed in detail in Chapter VI. Observed reactions of children to the shows, however, provide some additional information. In general, children were much more responsive to these shows than to other children's programming that we have studied. They were very responsive to the animated segments, the muppets, Buddy and Jim, and the animal films. The segments on Sesame Street, in general, drew less response from the children. The music used throughout the shows was very effective in getting children up and dancing. Inattentiveness, when it occurred, was related to specific segments and not to the duration of the show. The children seemed to enjoy these shows as much as anything we have seen them watch.

Introduction

The distractor procedure was used with test shows 1 and 4. Its purpose is to measure for each 7.5-second interval throughout a given program the percentage of time when the children actually have their eyes on the TV screen. The "distractor" is a series of still slides presented at the rate of one every 7.5 seconds on a rear-projection screen the same size and height as the television screen. It is situated to the side and facing the TV set at about a 45 degree angle from the child.

Sample and Procedure

The subjects were ten four-year olds from New York Day Care centers. The shows were presented to each child, individually, over closed-circuit TV, in black and white. The same ten children saw both shows. Half were boys, half girls. Half saw show 1 first, half saw show 4 first. Prior to the actual testing, each child was introduced to the situation three times on successive days in order to put him at ease.

Continuous observations were made for each child, using a chart recorder. If the child was looking at the screen, the stylus on the recorder was in one position but in any period of time when he was looking away a button was pressed, so the stylus moved to a different position. A similar button-pressing arrangement was used to provide a coordinated record of the times when the still slides changed on the distractor. Cumulative graphs for the two programs indicate the percent of viewing time for all 10 Ss during each 7.5 second interval throughout each program. These cumulative graphs appear at the end of this section of the report. Summaries derived from them also appear in the tables of the following section.

Results

The program materials previously tested by the distractor method provide a base line against which to evaluate the attention of the children to test shows 1 and 4. Table A-1 lists the two test shows along with programs previously tested, indicates the length of each program and also shows the average visual attention level for each (the maximum attention level possible is 100%). As the table shows, the two test shows are among the top six of the thirty programs tested, even though they are far longer than most. Some of the shortest segments listed in the table were presented in combination, but never in combinations running more than a total of about fifteen minutes. Presumably, the longer the total presentation, the more difficult to sustain a high level of attention. Immediately below is an analysis of successive segments from shows 1 and 4. The results will help in determining the effect of program lenghth on attention.

TABLE A-1
ATTENTION LEVELS ON PROGRAMS TESTED WITH DISTRACTOR

PROGRAM TESTED	LENGTH	AVERAGE VISUAL ATTENTION LEVEL
Animal Movie	9:45	.92
The Monkees	20:00	.91
Neighbors	7:45	.91
CTW TEST SHOW 1	58:00	.90
Pixie and Dixie	6:45	.89
CTW TEST SHOW 4	58:00	.88
Yogi Bear	6:45	.88
Captain Kangaroo (18)	14:00	.87
Man From Alphabet (clocks)	5:47	.84
Huckleberry Hound	6:45	.81
Lost in Space	30:00	.80
Man From Alphabet (penny)	5:47	.78
Dance Squared	3:20	.77
Saturday Safari	5:55	.76
Man From Alphabet (calendar)	5:57	.73
Captain Kangaroo (19)	14:00	.72
Captain Kangaroo (19)	56:45	.71
Alphabet	6:12	.71
Roundabout	14:33	.71
Quaker Oats Ad	1:00	.69
Rowan and Martin	17:00	.68
Birthday for Bird	6:18	.67
Misterogers	28:00	.65
Rich Cat Poor Cat	7:15	.64
Roger Ramjet	5:17	.63
Friendly Giant	15:00	.63
Rock in the Road	6:00	.61
What Am I?	11:30	.59
Eggs to Market	11:00	.57
A Ship Needs a Harbor	12:00	.51
Two Knots	9:00	.44

Table A-2 shows the average attention level for each of the four quarters of Shows 1 and 4. This table clearly demonstrates that attention was equally well sustained over the quarters of Show 1. However in the fourth quarter of Show 4, attention drops about 10% below the level of the first three quarters. The two lowest segments in the last quarter were: reading of the book, What Kind of Feet Does a Bear Have which ran three minutes at an average attention level of 80%, and "Man From Alphabet (calendar) which ran 5:22 minutes at an average level of 73%.

TABLE A-2
ATTENTION LEVEL FROM QUARTER TO QUARTER OF SHOWS 1 AND 4

SHOW 1	ATTENTION LEVEL	SHOW 4	ATTENTION LEVEL
*First quarter	.92	First quarter	.89
Second quarter	.91	Second quarter	.91
Third quarter	.89	Third quarter	.93
Fourth quarter	.90	Fourth quarter	.81

*13 minutes per quarter

Table A-3 shows percent of visual attention to various program elements listed by category. The categories include animation, films, music, animals street scenes and the like.

TABLE A-3
ATTENTION TO PROGRAM ELEMENTS BY CATEGORIES

Animation

SHOW 1	ATTENTION LEVEL	SHOW 4	ATTENTION LEVEL
Jazz #2 (2)	.98	D-Dog	1.00
Hensen #2 (2)	.97	Hensen #2	.97
Jazz #2 (1)	.97	1,2 Erase My Shoe	.93
Girl sings ABC's	.97	Countdown (1)	.93
Hensen #2 (1)	.93	Countdown (2)	.93
Superman	.93	Wanda the Witch (1)	.90
D-Dog	.93	Wanda the Witch (2)	.90
Countdown	.93	Greeblies	.90
D-Duck-Dime (2)	.93	Jazz #3 (1)	.90
D-Dudley (1)	.93	Jazz #3 (2)	.90
D-Duck-Dime (1)	.90	R Commercial (1)	.83
Batman	.87	R Commercial (2)	.83
D-Duck-Dime (3)	.90		
D-Dudley (2)	.83		

Films

SHOW 1	ATTENTION LEVEL	SHOW 4	ATTENTION LEVEL
Pairs of Animals	.97	Alphabet in Air	.97
Baby Reindeer	.93	Over, Under and Around	.90
Round Things	.90	Round	.83
Man From Alphabet (newspapers)	.83	Man From Alphabet (calendar)	.77
Triangle and Square	.80		

TABLE 3 (Cont.)

SHOW 1	ATTENTION LEVEL	SHOW 4	ATTENTION LEVEL
Music			
Muppets dance	.97	Everybody Dance (1)	1.00
Gordon & kids "Let's dance	.90	Everybody Dance (2)	1.00
LMB "Alphabet"	.87	Child sings alphabet	.97
LMB "You Gotta Learn"	.87	Everybody Dance (3)	.97
		Susan sings alphabet	.90
Animals			
Pairs of Animals (film)	.97	Bear cub (studio)	.83
Baby Reindeer (film)	.93	Muppets and Llama	.83
Baby raccoon (studio)	.87		
Sesame Street Sketches			
Hooper, newspaper	.97	Gordon fixes window	1.00
Gordon, D in cement	.93	Bubbles	.90
Bob reads "Wild Things"	.93	R things (Gordon)	.90
Gordon, Susan talk: reindeer intro	.73	Sesame St. intro sign	.90
		Card game (Bob and kids)	.87
		Gordon reads "What Kind of Feet Does a Bear Have"	.80
Talking to Children on Set			
Susan talks: round things	.97	Dance pose	.97
Susan talks: triangles	.87	Bubbles	.90
		Follow the leader	.90
		Card game (Bob & kids)	.87
		Gordon reads "What Kind of Feet Does a Bear Have"	.80
Muppet Sketches			
Two noses sketch	.87	Kermit & W (monster)	.93
		Ernie, Bert, Three	.90
		Kermit & W (wiggle)	.87
		Llama	.83
Magician			
Tearing up newspaper	.87	R	.90
Buddy & Jim			
Nail sketch	.93		

While the preceding table shows average attention level for various segments, it does not show trends in attention over the course of a particular segment in Show 1. Three segments showed a clear decline. The "Listen My Brother" rock singing group appeared twice for about 2½ minutes each time. On their first appearance the attention dropped gradually from 97% to 70%, and on their second, from 93% to 60%, recovering somewhat during the last fifteen seconds. There is no way to determine just why these declines occurred. It may be that little visual attention is required to follow the songs, and that the singing therefore provides an opportunity for the children to relax their visual attention. It could be that the setting or the group was not interesting, or, as some adult observers felt, that the words of the songs were spoken indistinctly, and that the children did not therefore know that the songs were intended for them. The third declining segment was the racoon on the set. It ran for about 1:45 minutes and dropped from about 98% to 82%. None of the segments in Show 4 showed a clear tendency to decline.

Many members of the staff felt that the scenes involving the Street set tended to be less appealing to the child than other elements of the show. The results for Show 4 indicate that the street was the locale for approximately one-third of all the 457 observation intervals. Street scenes appeared in roughly the same ratio in the 70 highest observation intervals, and also in one out of every three of the 70 lowest observation intervals. In short, street scenes were equally represented among the data points representing the highest, the middle and the lowest levels of visual attention.

Additional summary data on viewing in the distractor context appear in Table A-4. The entries entitled "Average period of uninterrupted viewing" show the average length of time the children held their eyes on the set without looking away. "Average period of non-viewing" is the average length of time spent looking away from the set over the course of each show.

TABLE A-4

SUMMARY OF VISUAL BEHAVIOR FOR SHOWS 1 AND 4

	SHOW 1	SHOW 4
All children:		
Average period of uninterrupted viewing	1:42	0:50
Average period of non-viewing	0:04	0:04
All children		
Average of total non-viewing times	6:05	6:49
Range of total non-viewing times	0:28 to 12:27	0:42 to 19:51
Percent non-viewing of entire show	10%	11.6%
Boys only:		
Average of total non-viewing times	5:21	4:15
Percent non-viewing of entire show	9.2%	7.3%
Girls only:		
Average of total non-viewing times	6:48	9:11
Percent non-viewing of entire show	11.8%	15.8%

The "Average of total non-viewing times" is derived by summing up all the times when each child was not looking at the set over the course of a show, and then finding the average of these times. The "range of total non-viewing times" shows that for Show 1 one child looked away for only 28 seconds, while the longest total non-viewing time for any child was about 12.5 minutes. When all the non-viewing times for all ten children are added together, they comprise 10% of the potential viewing time for Show 1 (reflecting a 90% attention level) and 11.6% of the potential viewing time for Show 2 (an attention level of about 88%).

The separate entries for boys and girls show that girls were 2.6% less attentive to Show 1 than boys, and 8.5.% less attentive to Show 4.

In addition to the results shown in table A-4, a number of additional questions were explored relative to the distractor data. For example, the number of times the children switched between viewing and not viewing the program has no relationship to the time of day. In other words, they were no more frequently distracted at one time of day than another, at least in the time range from about 8:30 a.m. to 4:30 p.m. Neither were the children distracted for a greater total amount of time at one time of day than at another.

Evidence was also available to show whether children spend more time looking away from the set after longer than after shorter periods of uninterrupted viewing. No such systematic relationship was found. Larger periods of viewing did not systematically result in longer periods of non-viewing.

Finally, the continuous record of viewing and non-viewing periods for each child was scanned for evidence of systematic cycles. There is no clear evidence that periods of viewing and non-viewing follow a regularly recurring pattern, or that the rate of distractibility is greater during one part of the viewing hour than during another. A conclusion is that fluctuations in visual attention over the course of a program up to an hour in length are almost wholly predictable from external conditions such as the program elements themselves and distracting events in the viewing environment.

Several pages of graphs showing the fluctuations in visual attention from one 7.5-second interval to the next over the entire course of Show 1 and Show two appear in Appendix A. Each graph represents the cumulative data for all ten children tested with the distractor procedure described above. A particular graph is most meaningful when used as a reference while actually viewing Show 1 or Show 4. They are included here primarily for that purpose.

SUMMARY AND CONCLUSIONS

The major conclusions based on the analysis of visual attention to shows 1 and 4 are listed below:

1. The average level of visual attention to the two hour-long test shows studies with the distractor procedure was very high compared with attention to previously studied programs. Contrary to the occasionally encountered view that the four-year old's attention span is too short for an hour-long show to be effective, these children kept their eyes on the set for 90% of one of the hour-long test shows, and for 88% of the other.

2. The attention level of the ten four-year olds tested was as high in later as in earlier quarters of the two shows, except for the fourth quarter of show 1, which contained two rather lengthy elements identified on various bases as inappropriate for "Sesame Street". The evidence from the distractor data and from other research contexts as well suggests that an hour is an appropriate program length from the standpoint of sustained attention and interest.

3. The distractor method has been useful in identifying specific program elements of particularly high and particularly low appeal; elements capable of sustaining attention for longer vs. shorter periods of time; and comparisons between and within such categories as animals, "Sesame Street" scenes, segments in which talking is prominent, muppet bits, animations, live-action films, and scenes in which books are read. The distractor results have also been useful in comparing visual attention for boys and girls (girls were slightly less attentive than boys); for different times of day (attention was equally high at all times between about 8:30 a.m. and 4:30 p.m.); and following longer vs. shorter periods of uninterrupted viewing (children looked away for the same amount of time after long periods of uninterrupted viewing as after short periods of uninterrupted viewing).

APPENDIX A

Cumulative Distractor Graphs*

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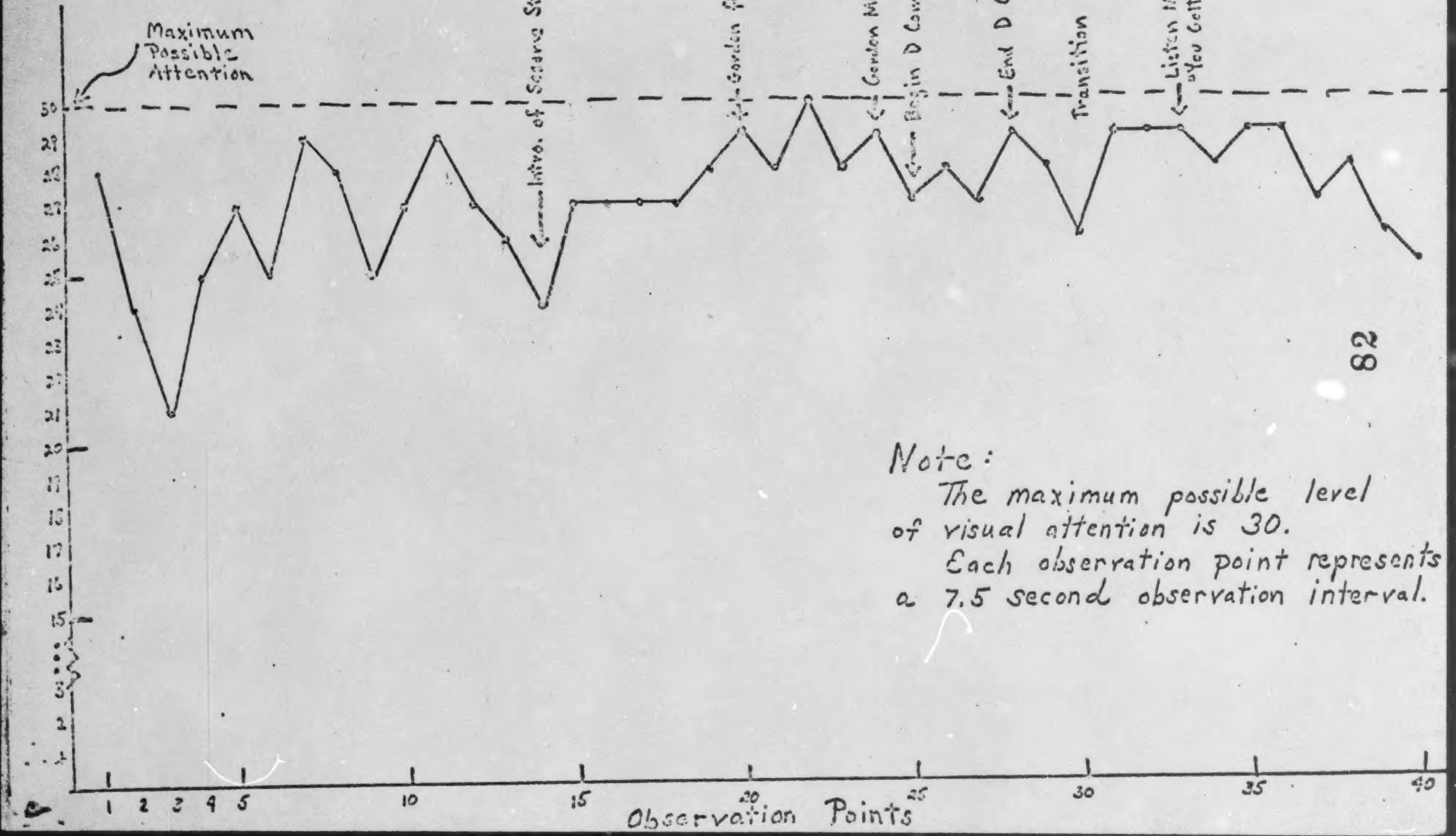
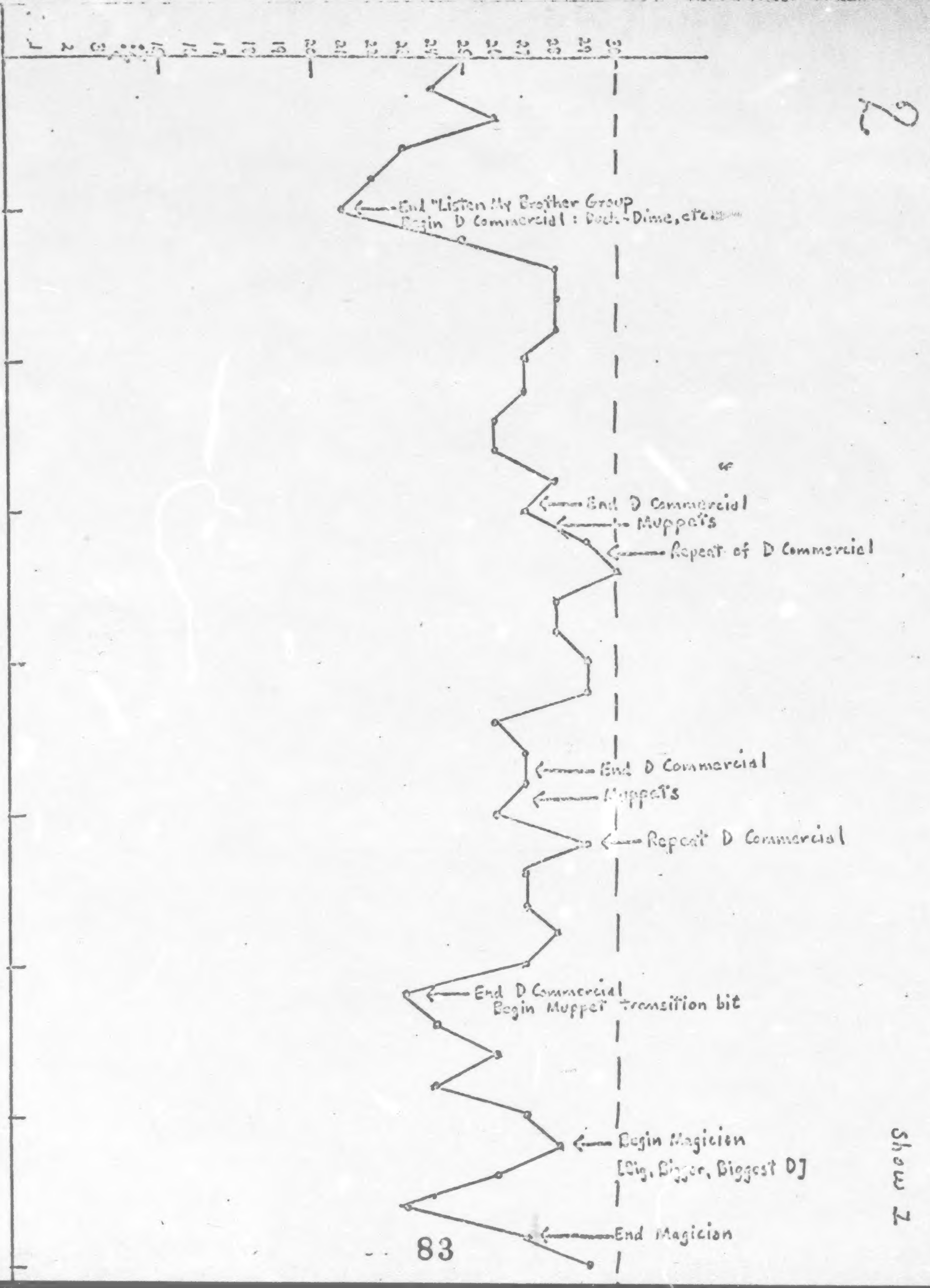
*Note: Each of the two following graphs extends over 12 successive pages, and presents visual attention levels over successive 7.5-second intervals throughout test shows 1 and 4, respectively.

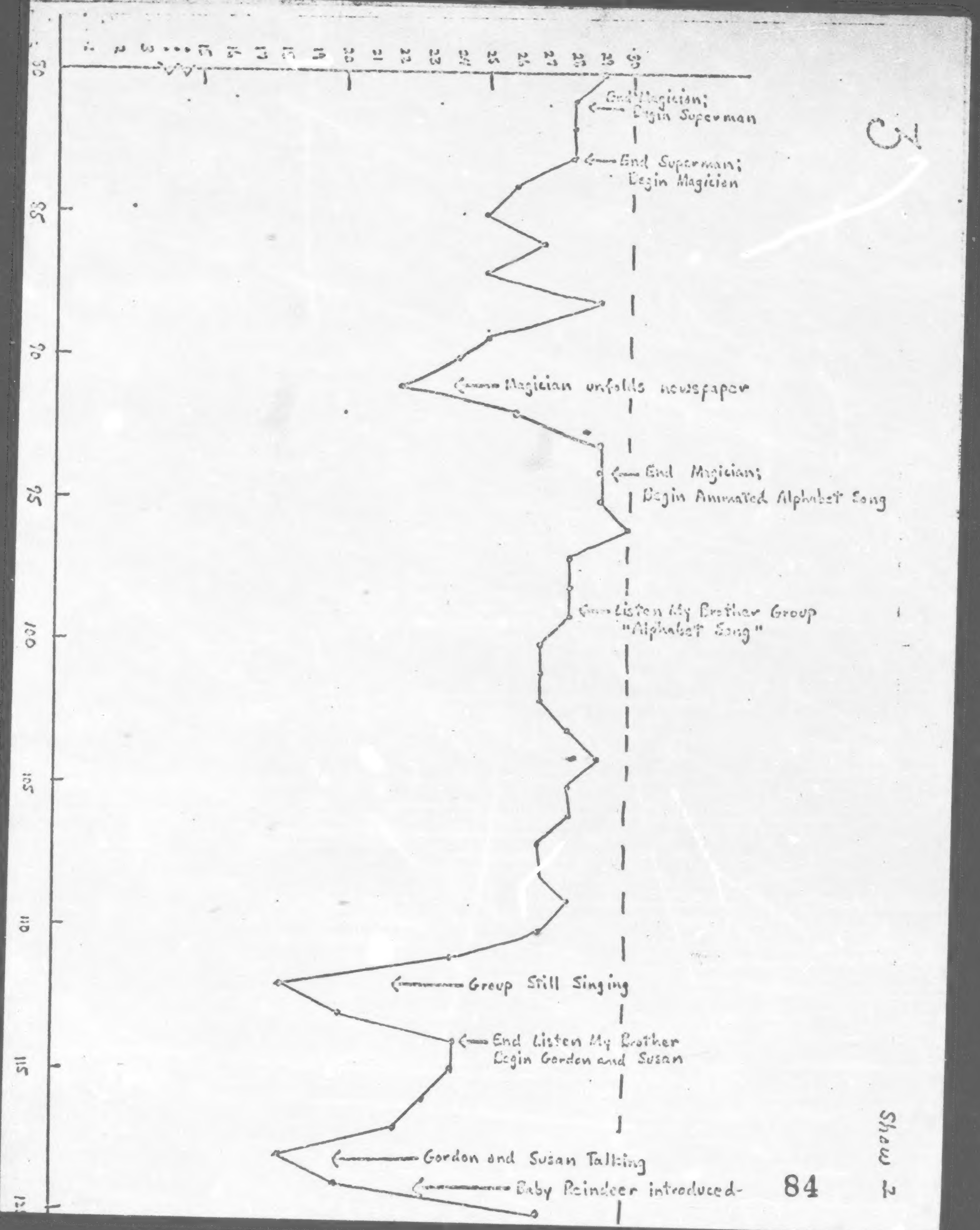
P. 1

Show 2

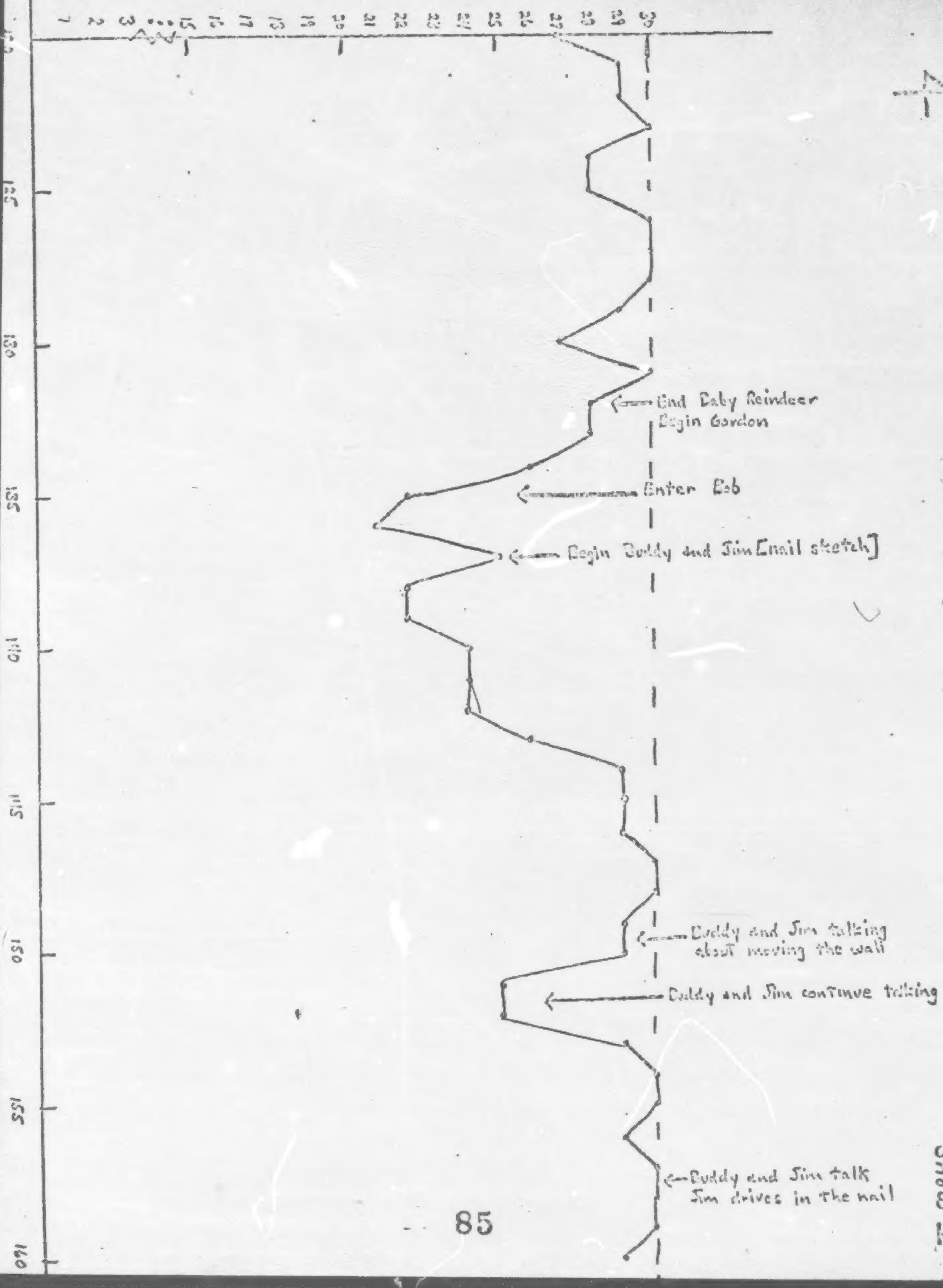


Note:
The maximum possible level of visual attention is 30.
Each observation point represents a 7.5 second observation interval.


2
45
50
55
60
65
70
75
80
End "Listen My Brother Group
Begin D Commercial : Duck-Dime, etc.
End D Commercial
Muppets
Repeat of D Commercial
End D Commercial
Muppets
Repeat D Commercial
End D Commercial
Begin Muppet transition bit
Begin Magician
[Big, Bigger, Biggest D]
End Magician
Show 2

CN
1
2
3
20
25
30
80
85
90
95
100
105
110
115
120
End Magician; Begin Superman
End Superman; Begin Magician
Magician unfolds newspaper
End Magician; Begin Animated Alphabet Song
Listen My Brother Group "Alphabet Song"
Group Still Singing
End Listen My Brother Begin Gordon and Susan
Gordon and Susan Talking
Baby Reindeer introduced-
Show 2

4


1
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23
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27
28
29
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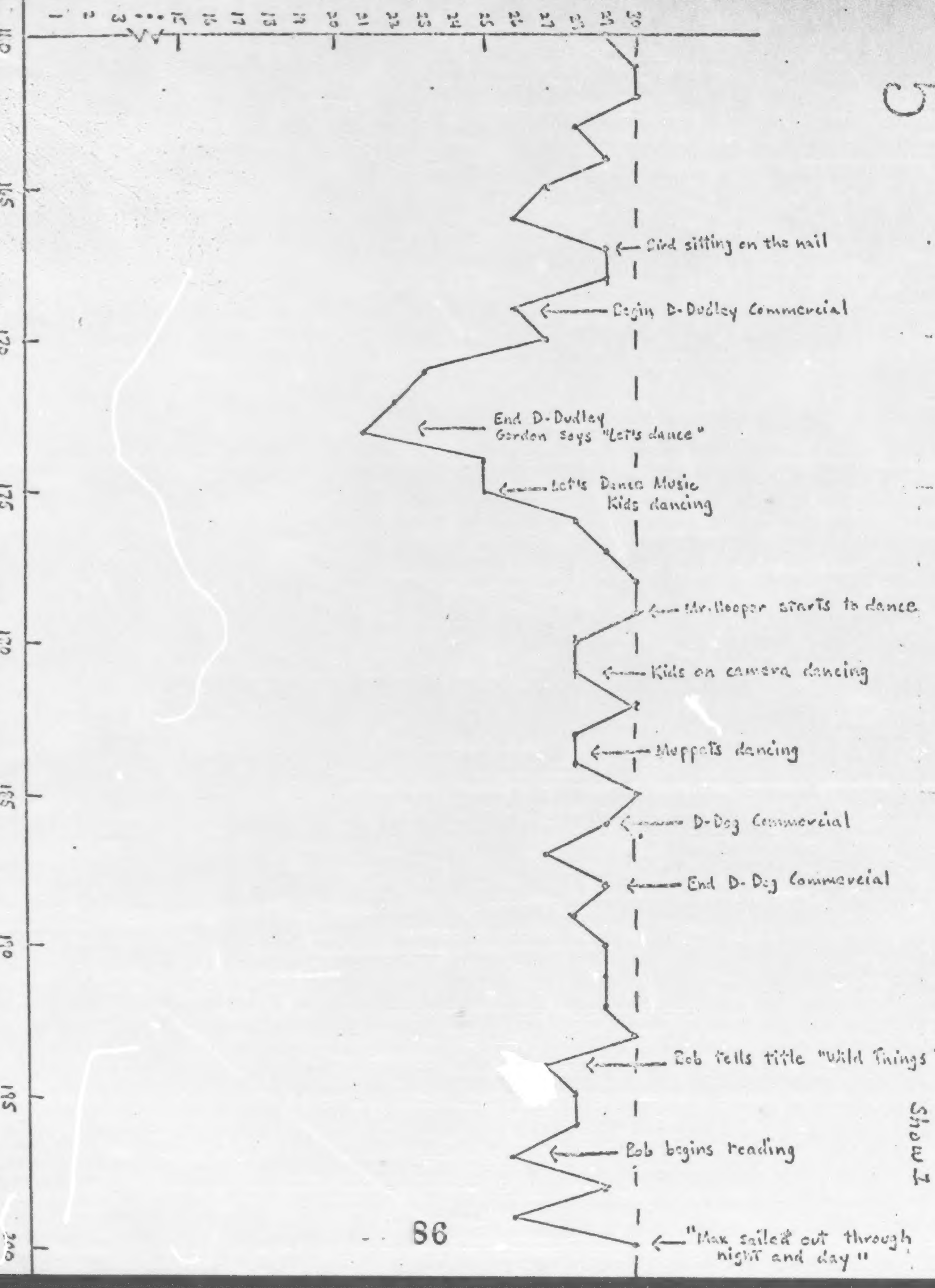
120
125
130
135
140
145
150
155
160
End Baby Reindeer
Begin Gordon
Enter Bob
Begin Buddy and Jim [nail sketch]
Buddy and Jim talking
about moving the wall
Buddy and Jim continue talking
Buddy and Jim talk
Jim drives in the nail

Show 2

5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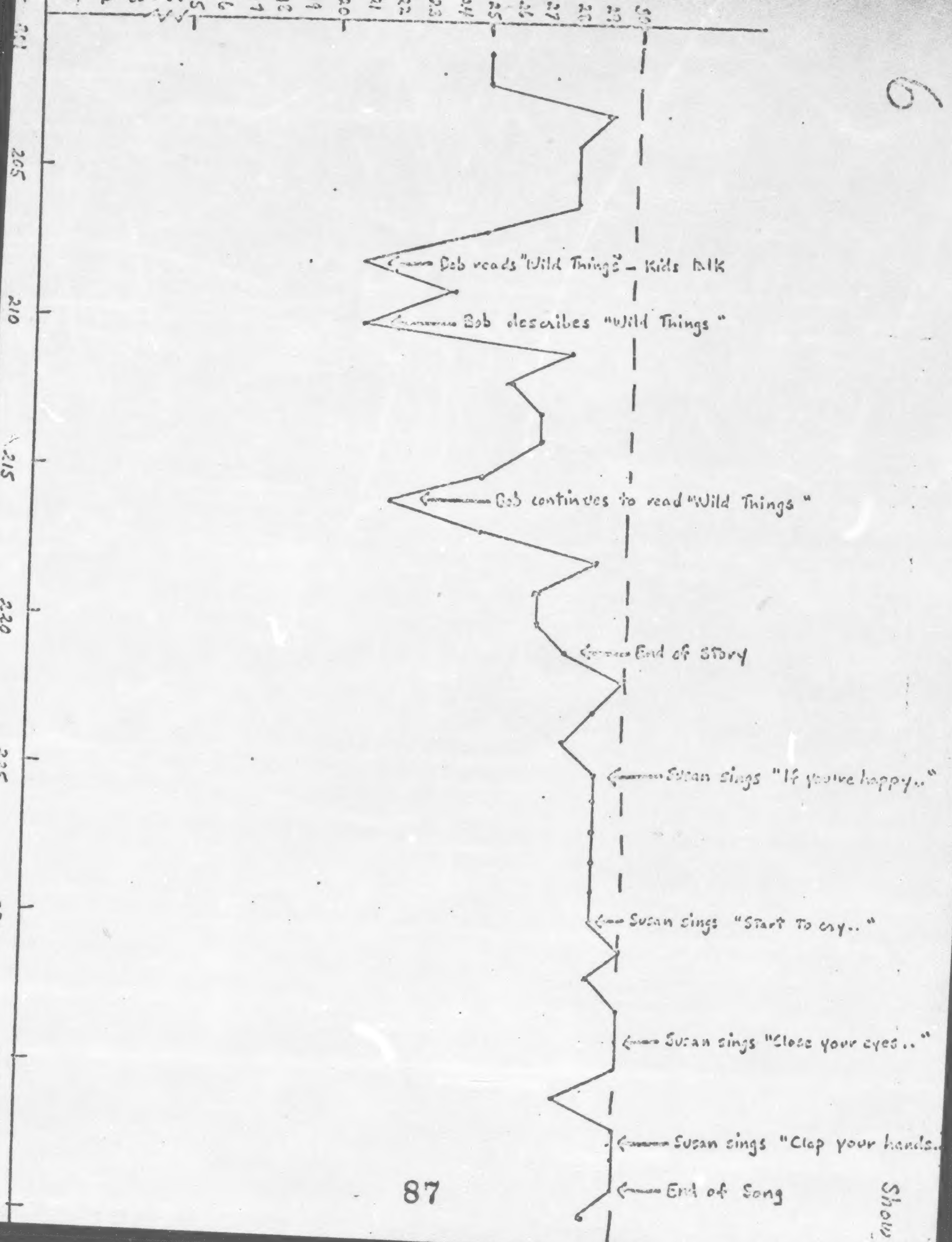
110
115
120
125
130
135
140
145
150
Bird sitting on the nail
Begin D-Dudley Commercial
End D-Dudley
Gordon says "Let's dance"
Let's Dance Music
Kids dancing
Mr. Hooper starts to dance
Kids on camera dancing
Muppets dancing
D-Dog Commercial
End D-Dog Commercial
Bob tells title "Wild Things"
Bob begins reading
"Max sailed out through night and day"

Show I

6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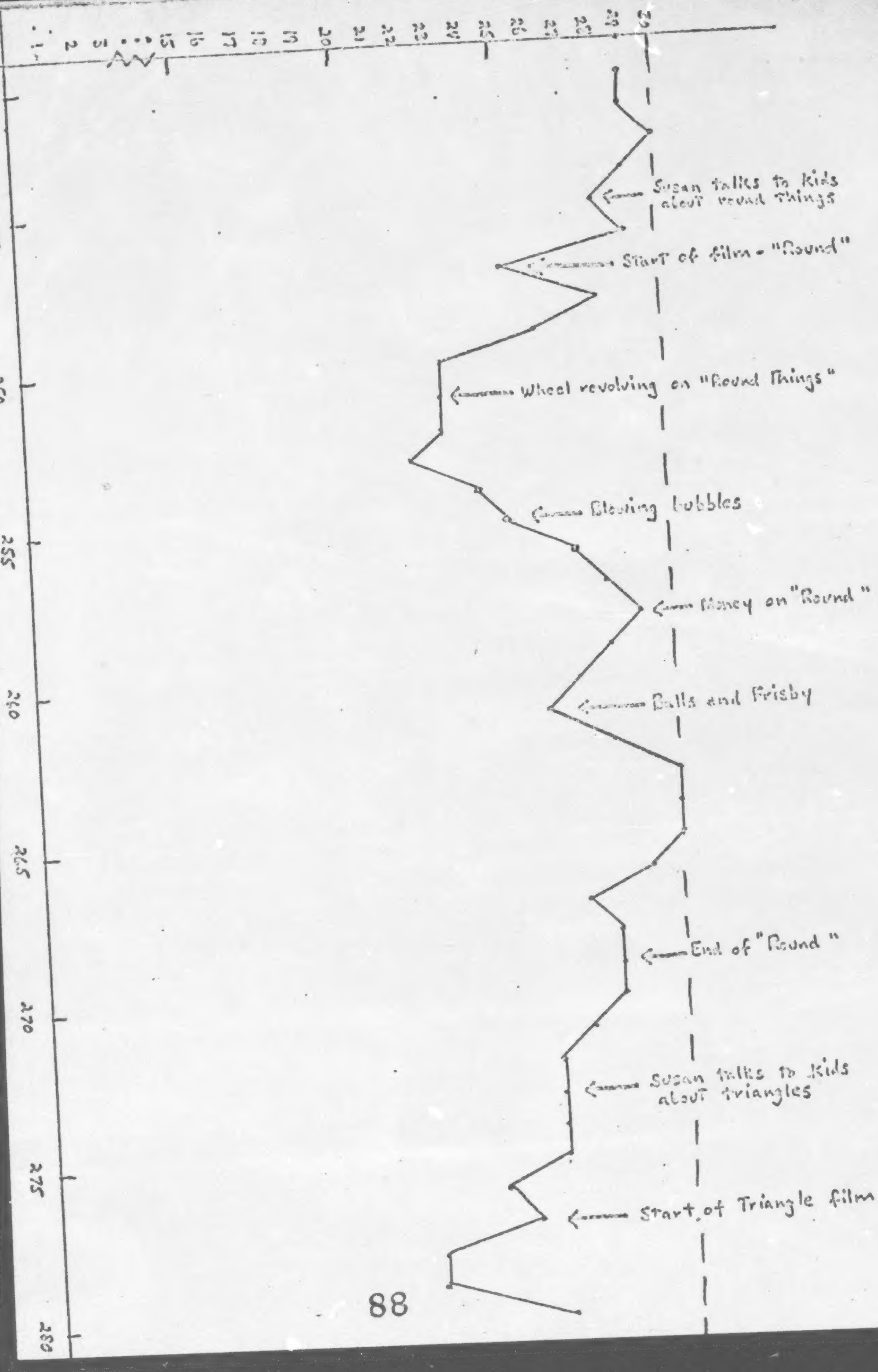
200
205
210
215
220
225
230
235
240
Bob reads "Wild Things" – Kids talk
Bob describes "Wild Things"
Bob continues to read "Wild Things"
End of Story
Susan sings "If you're happy.."
Susan sings "Start to cry.."
Susan sings "Close your eyes.."
Susan sings "Clap your hands.."
End of Song

Show 2



Susan talks to kids about round things

Start of film - "Round"

Wheel revolving on "Round Things"

Blowing bubbles

Money on "Round"

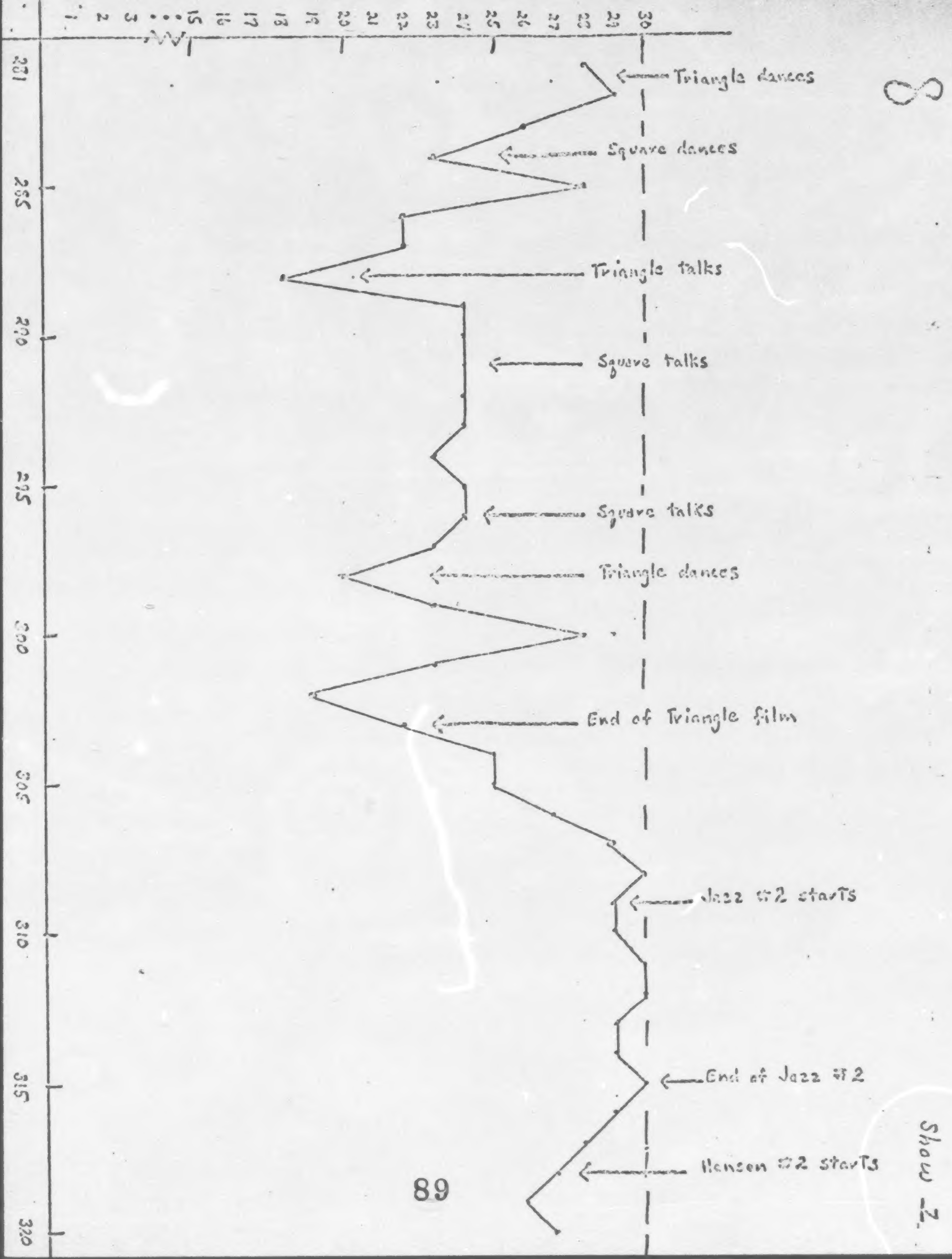
Balls and Frisby

End of "Round"

Susan talks to kids about triangles

Start of Triangle film

Show I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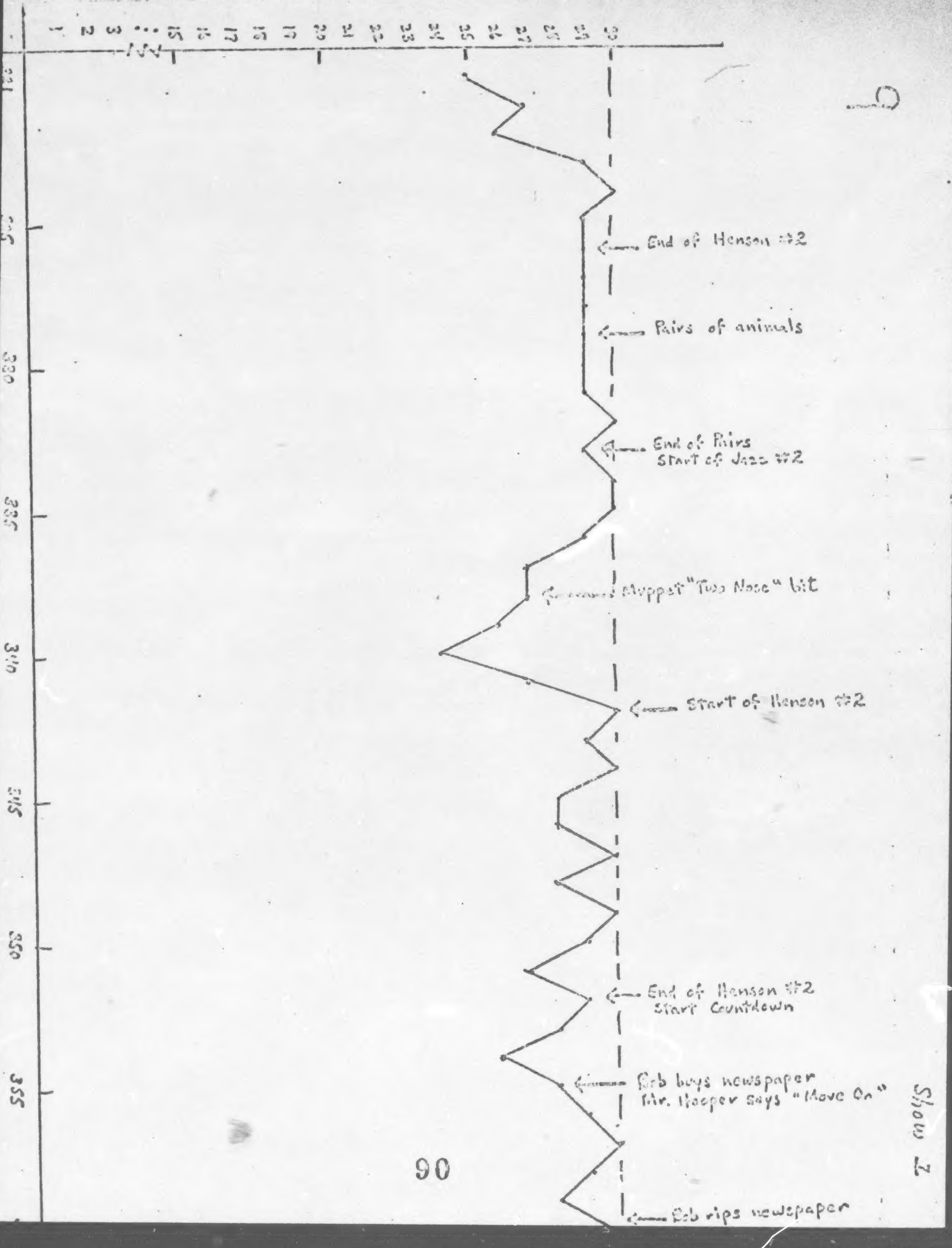
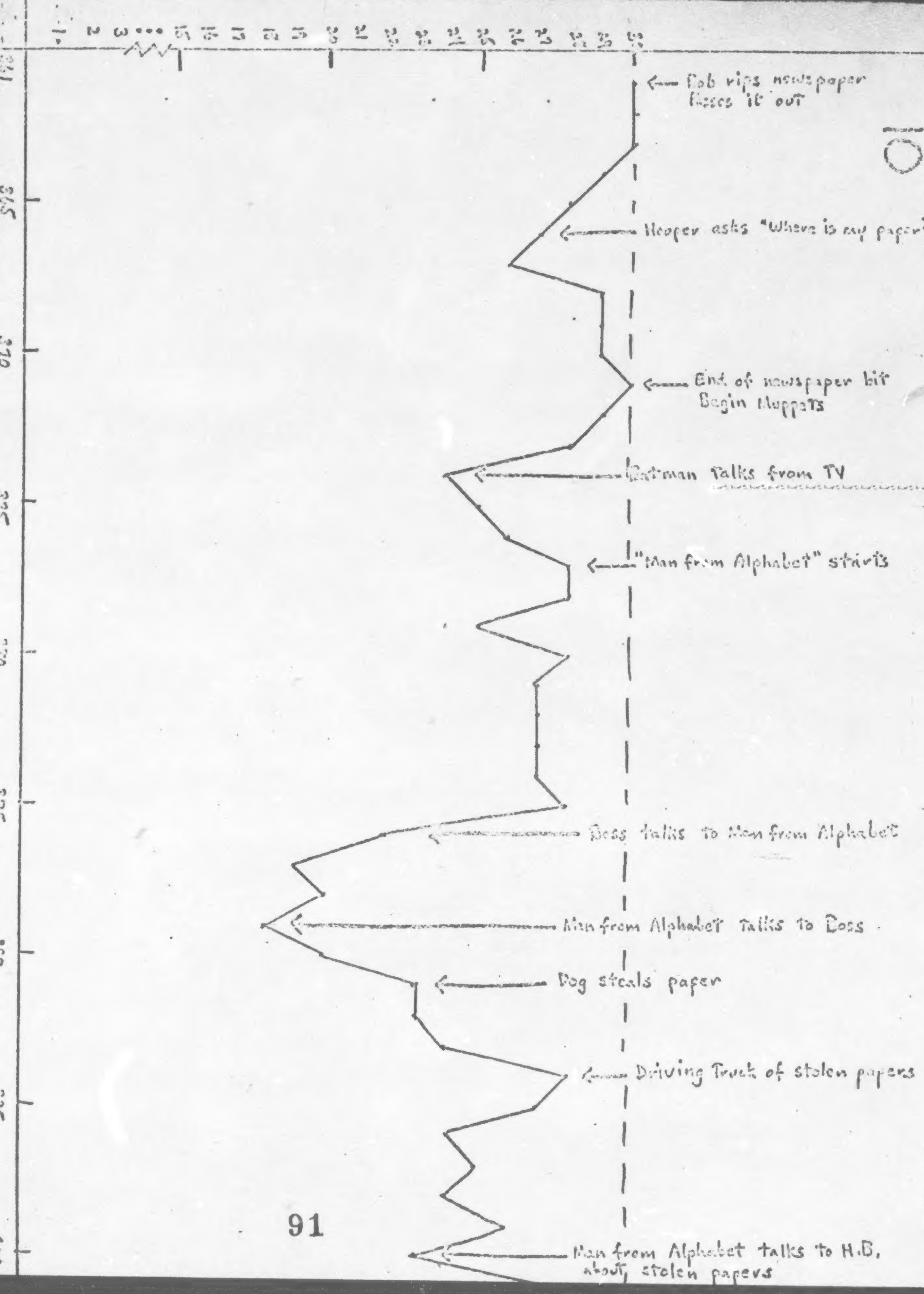
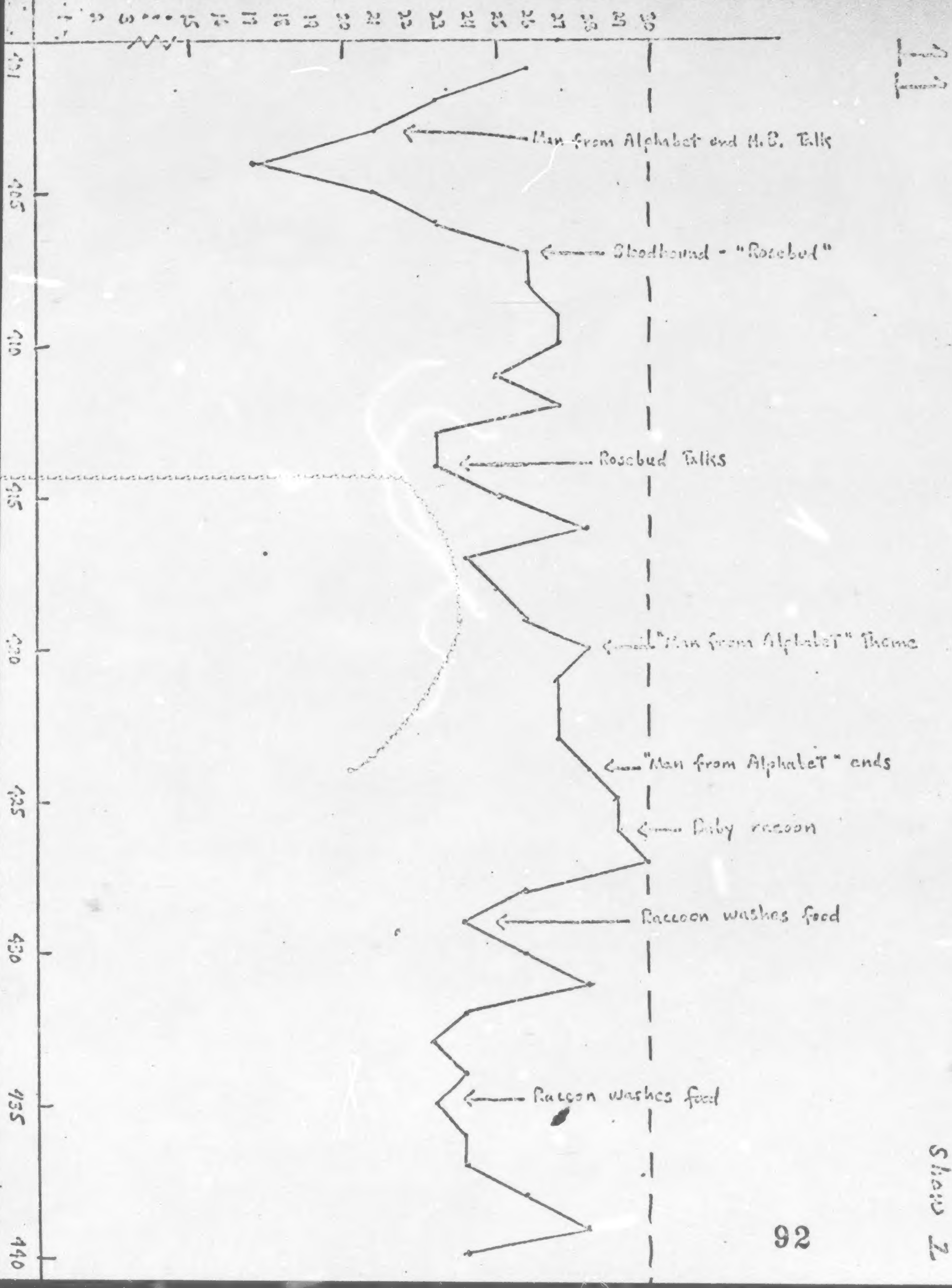
280
285
290
295
300
305
310
315
320
Triangle dances
Square dances
Triangle talks
Square talks
Square talks
Triangle dances
End of Triangle film
Jazz #2 starts
End of Jazz #2
Hansen #2 starts
Show 2
8

1 2 3 ... 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
325
330
335
340
345
350
355
End of Henson #2
Pairs of animals
End of Pairs
Start of Jazz #2
Muppet "Two Nose" bit
Start of Henson #2
End of Henson #2
Start Countdown
Bob buys newspaper
Mr. Hooper says "Move On"
Bob rips newspaper
Show 1


360
365
370
375
380
385
390
395
400
Bob rips newspaper tosses it out
Hooper asks "Where is my paper?"
End of newspaper bit Begin Muppets
Batman talks from TV
"Man from Alphabet" starts
Boss talks to Man from Alphabet
Man from Alphabet talks to Boss
Dog steals paper
Driving Truck of stolen papers
Man from Alphabet talks to H.B. about stolen papers

Show 2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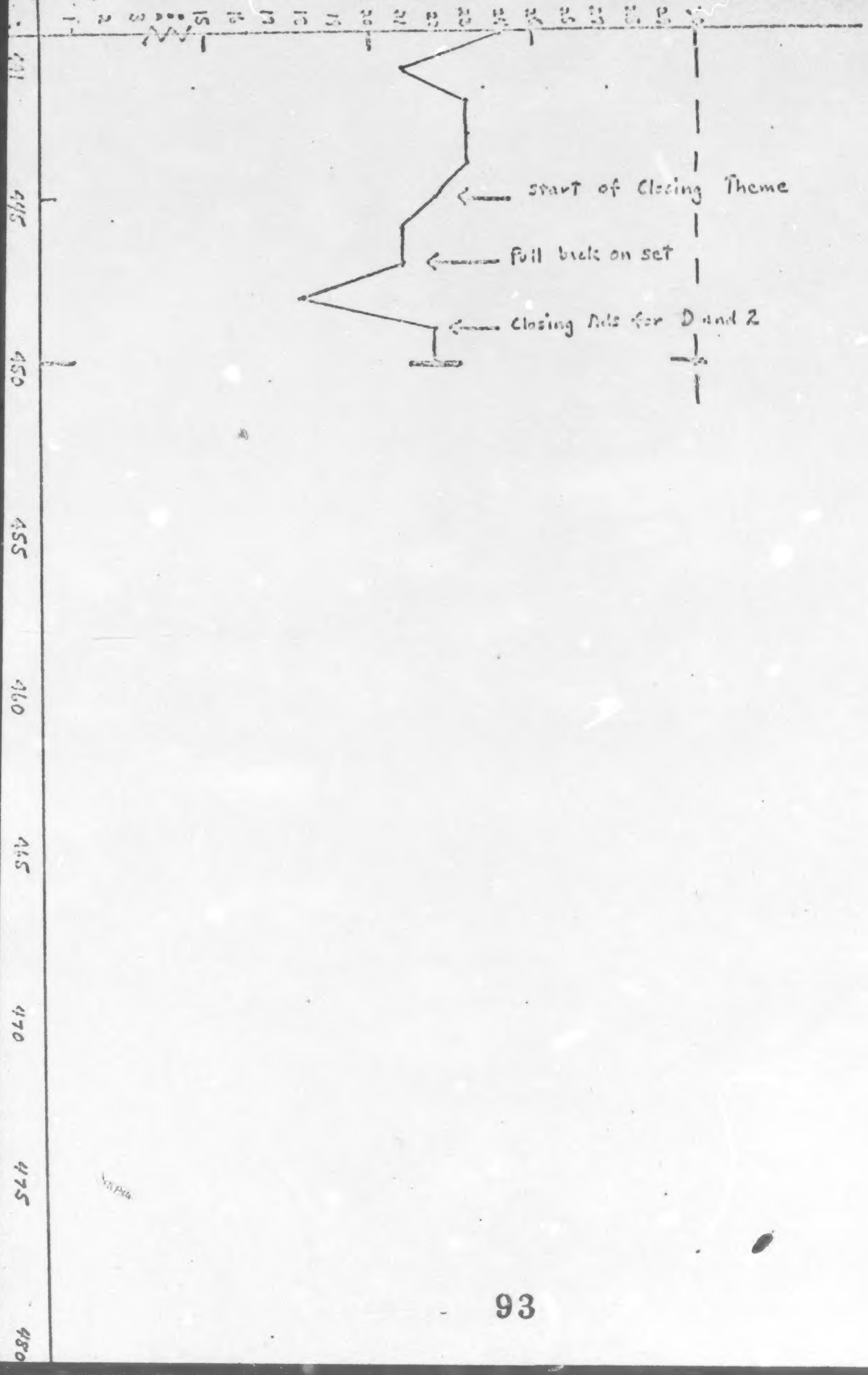
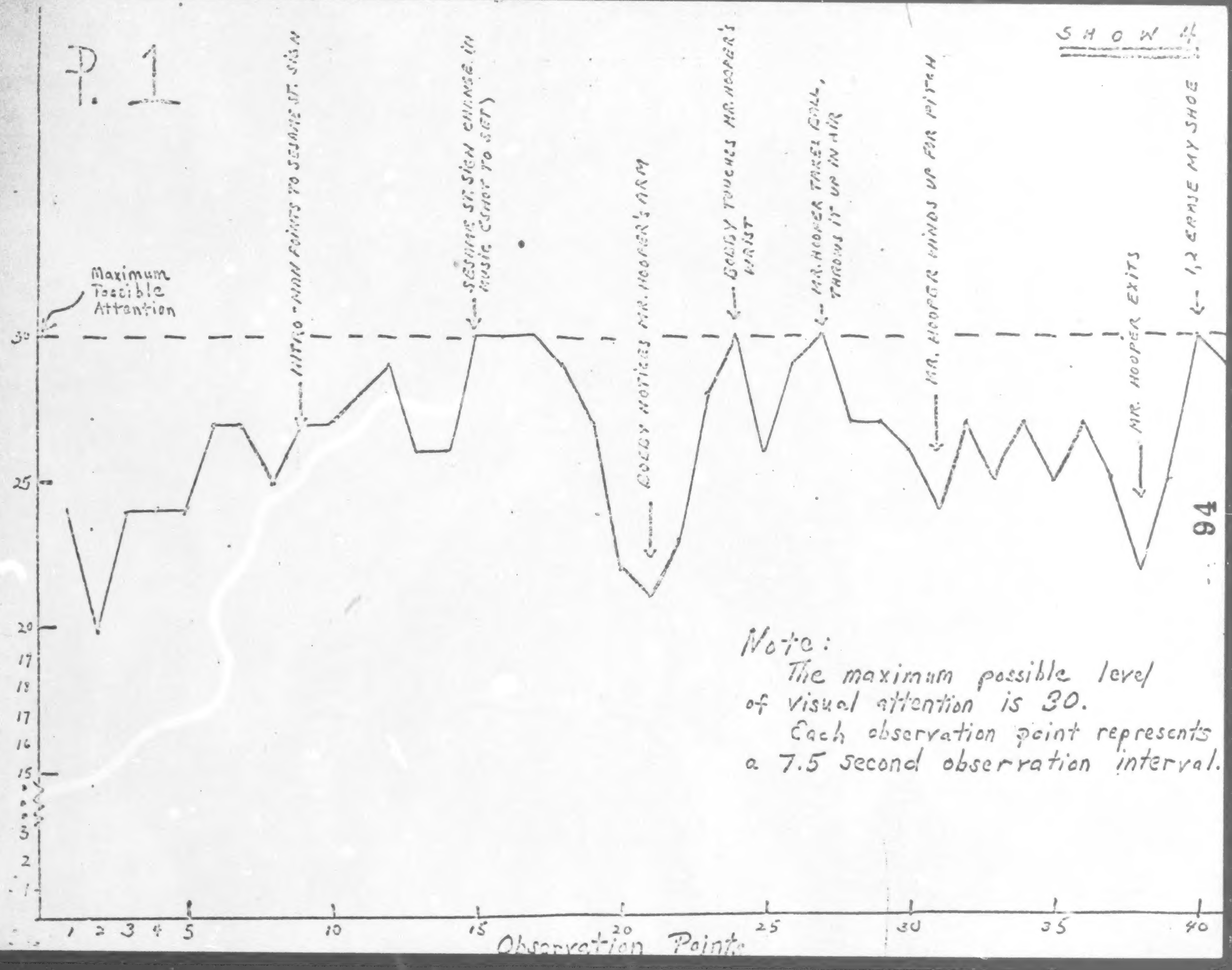
401
405
410
415
420
425
430
435
440
Man from Alphabet and H.B. Talk
Bloodhound - "Rosebud"
Rosebud Talks
"Man from Alphabet" Theme
"Man from Alphabet" ends
Baby racoon
Raccoon washes food
Raccoon washes food

Show 2

12

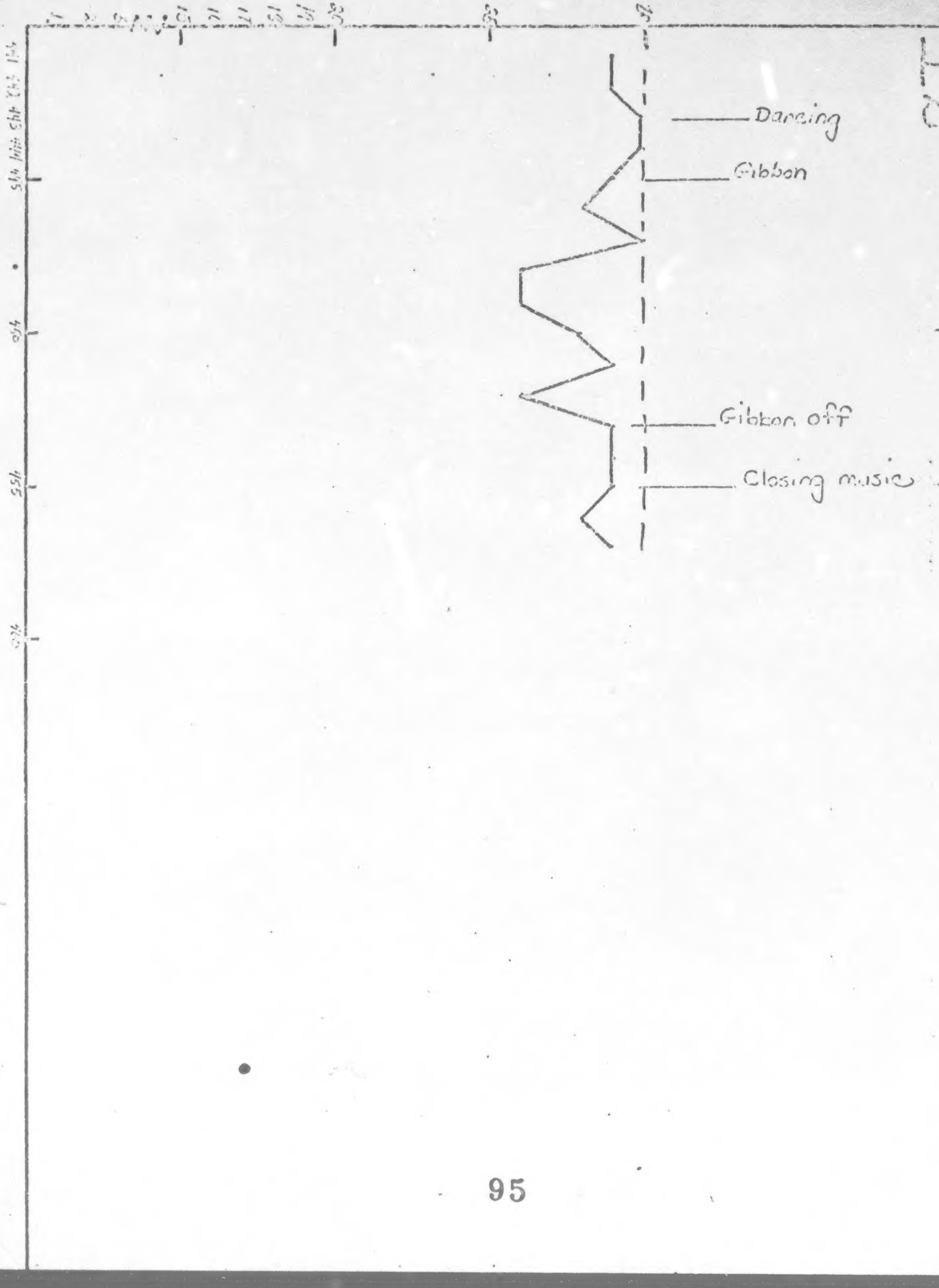

start of Closing Theme
Pull back on set
Closing Ads for D and 2
445
450
455
460
465
470
475
480

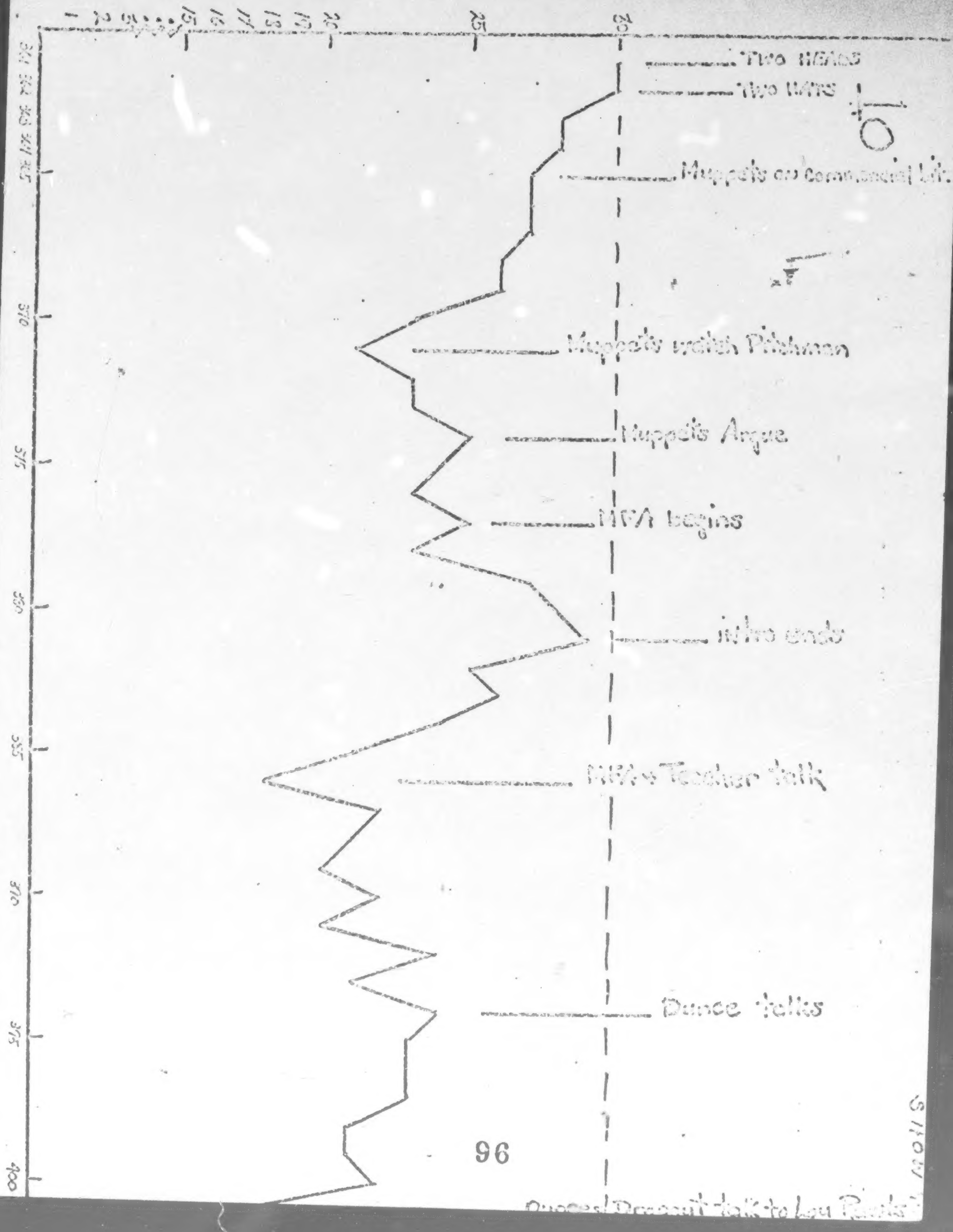
Show 2



Note:
The maximum possible level of visual attention is 30.
Each observation point represents a 7.5 second observation interval.

12


441
442
443
444
445
450
455
460
Dancing
Gibbon
Gibbon off
Closing music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25
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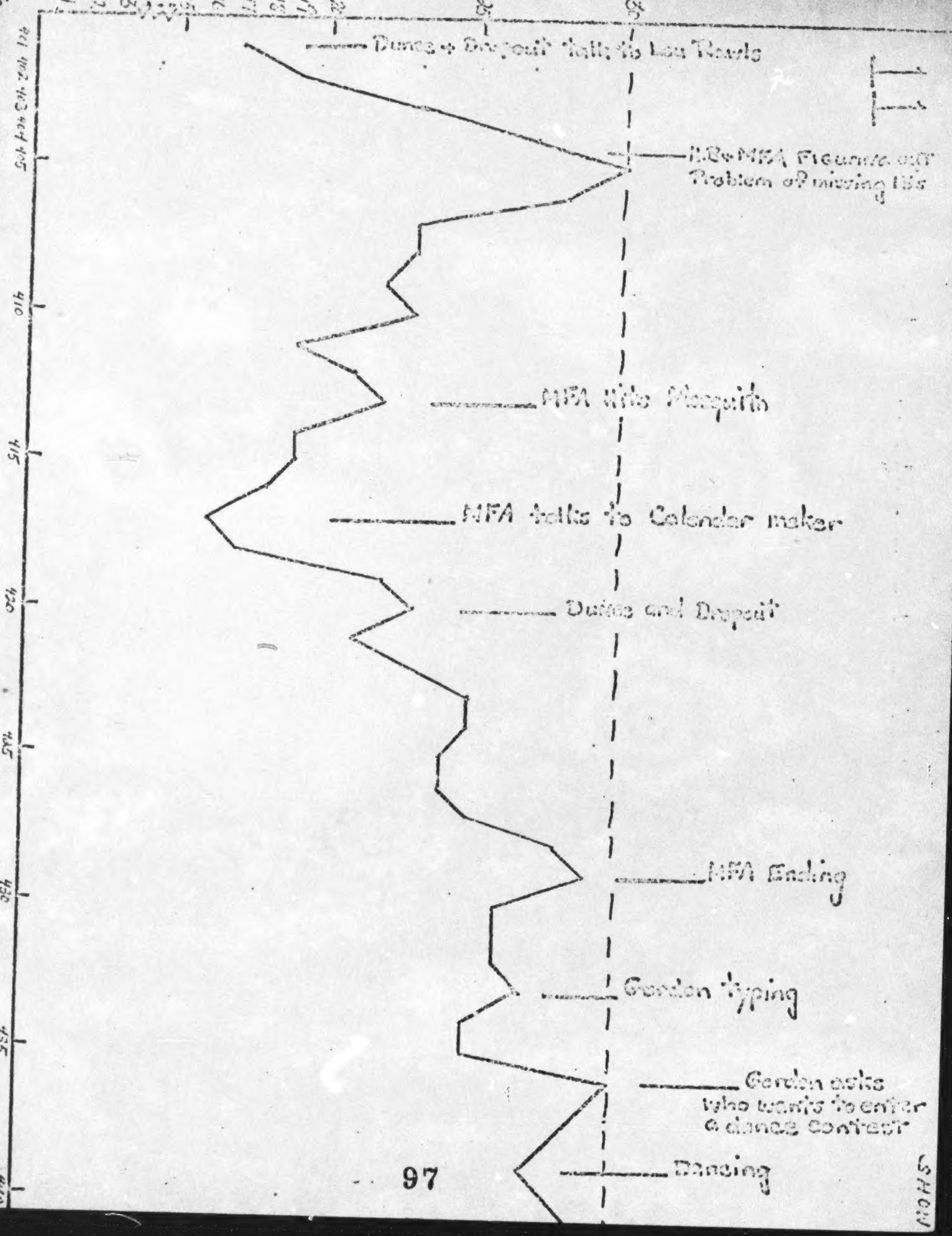
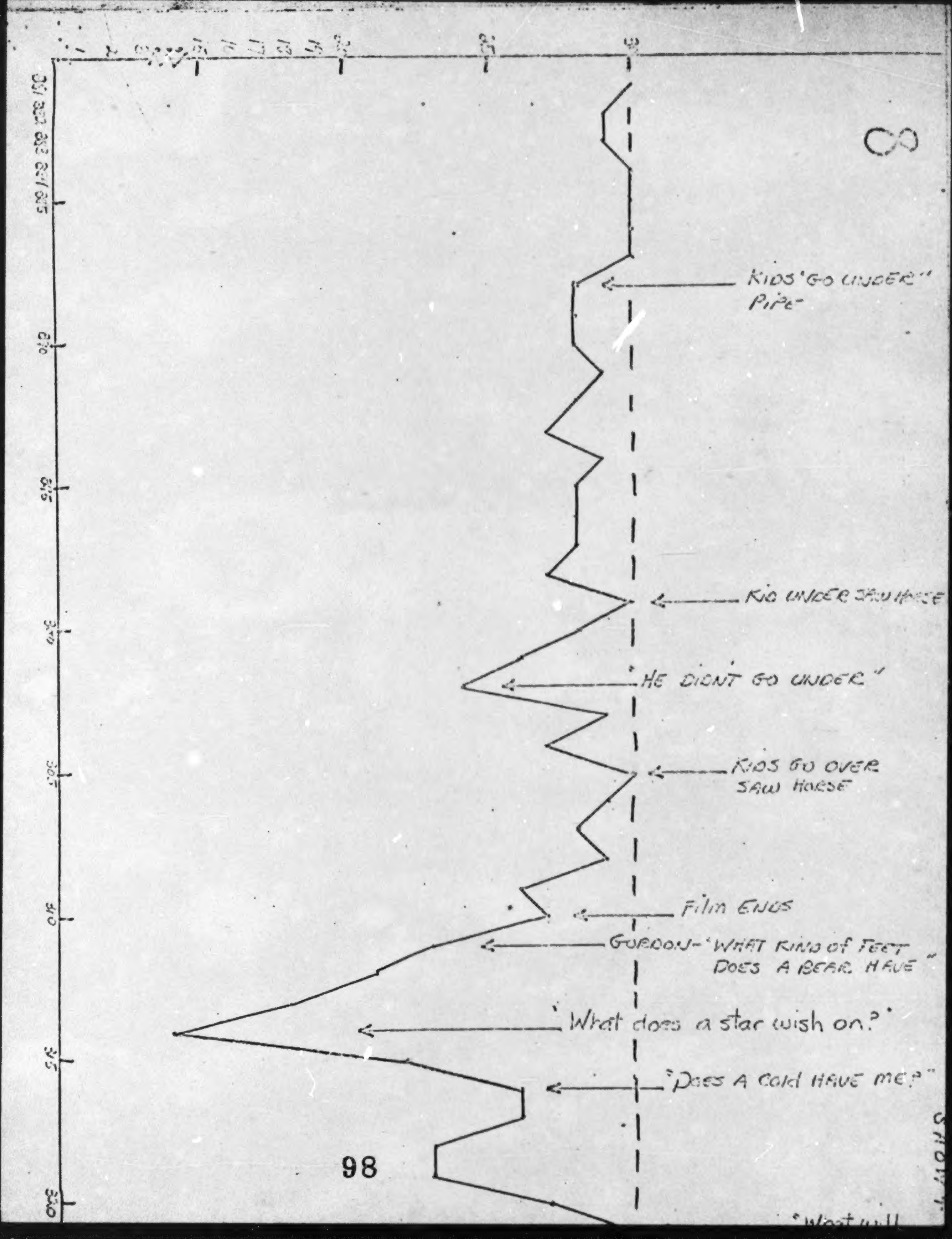
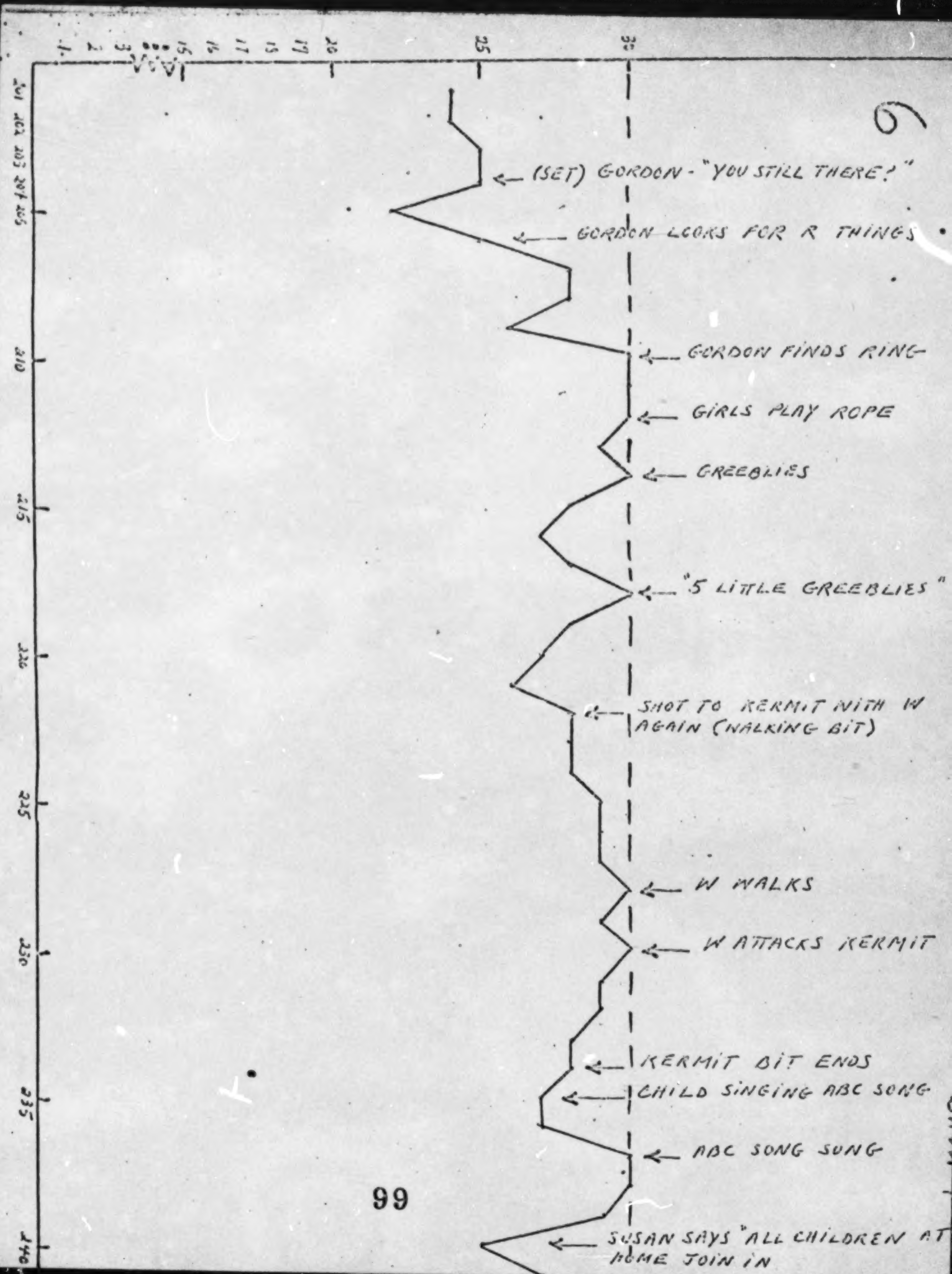
370
375
380
385
390
395
400
Two HEADS
Two HATS
Muppets on commercial lib.
Muppets watch Pitchman
Muppets Argue
MFA begins
intro ends
MFA+Teacher talk
Dance talks
talk to Lou


401 402 403 404 405
410
415
420
425
430
435
440
Dunes + Dropout talk to Lou Rawls
E.B+MFA Figure out Problem of missing 18's
MFA with Mosquito
MFA talks to Calendar maker
Dunes and Dropout
MFA Ending
Gordon typing
Gordon asks who wants to enter a dance contest
Dancing


8
30
25
20
15
KIDS "GO UNDER" PIPE
KID UNDER SAW HORSE
"HE DIDN'T GO UNDER"
KIDS GO OVER SAW HORSE
Film ENDS
GORDON- "WHAT KIND of FEET DOES A BEAR HAVE"
"What does a star wish on?"
"DOES A COLD HAVE ME?"
"What will


V.I.A.
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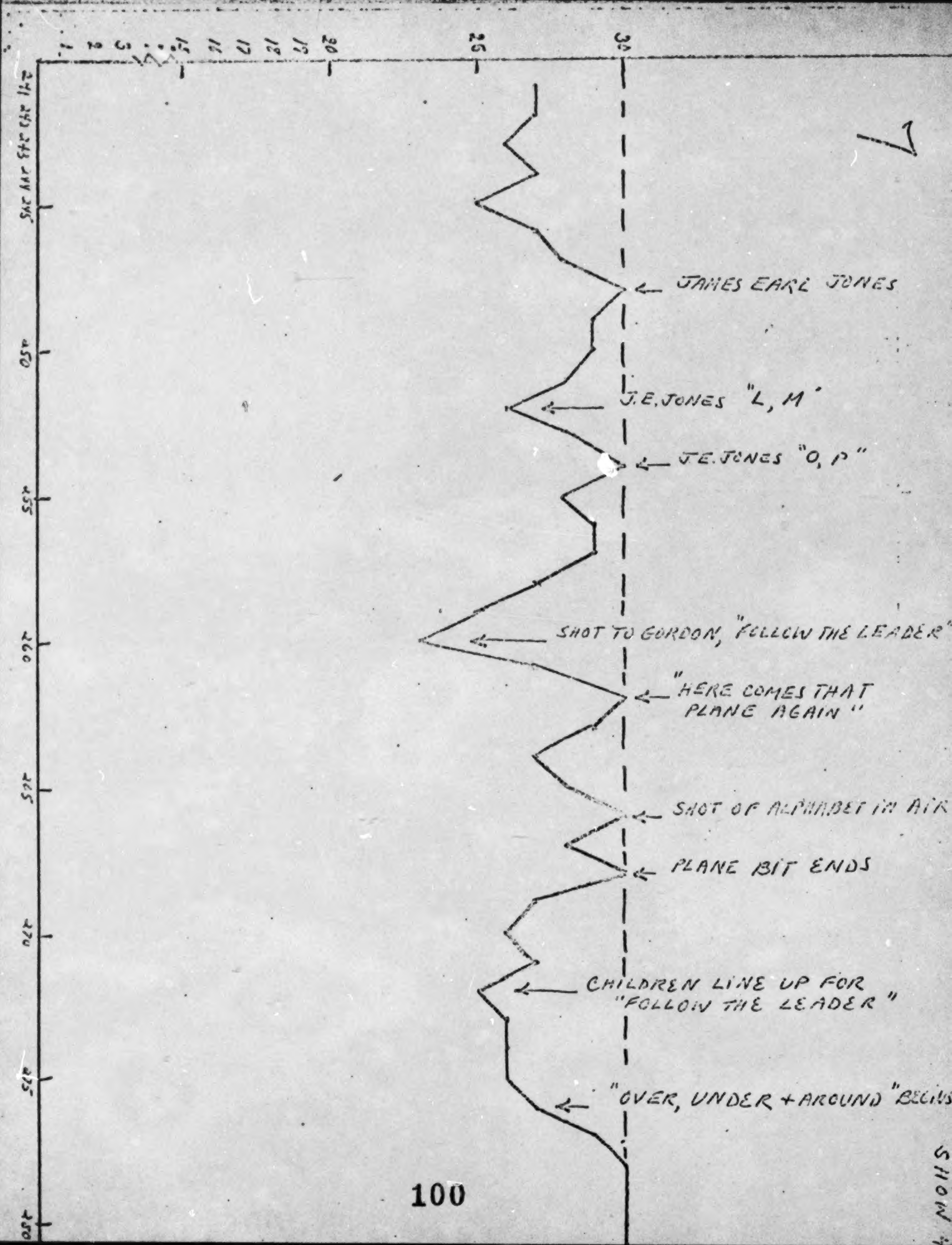
6
201
202
203
204
205
210
215
220
225
230
235
240
(SET) GORDON - "YOU STILL THERE?"
GORDON LOOKS FOR R THINGS
GORDON FINDS RING
GIRLS PLAY ROPE
GREEBLIES
"5 LITTLE GREEBLIES"
SHOT TO KERMIT WITH W AGAIN (WALKING BIT)
W WALKS
W ATTACKS KERMIT
KERMIT BIT ENDS
CHILD SINGING ABC SONG
ABC SONG SUNG
SUSAN SAYS "ALL CHILDREN AT HOME JOIN IN

7
1
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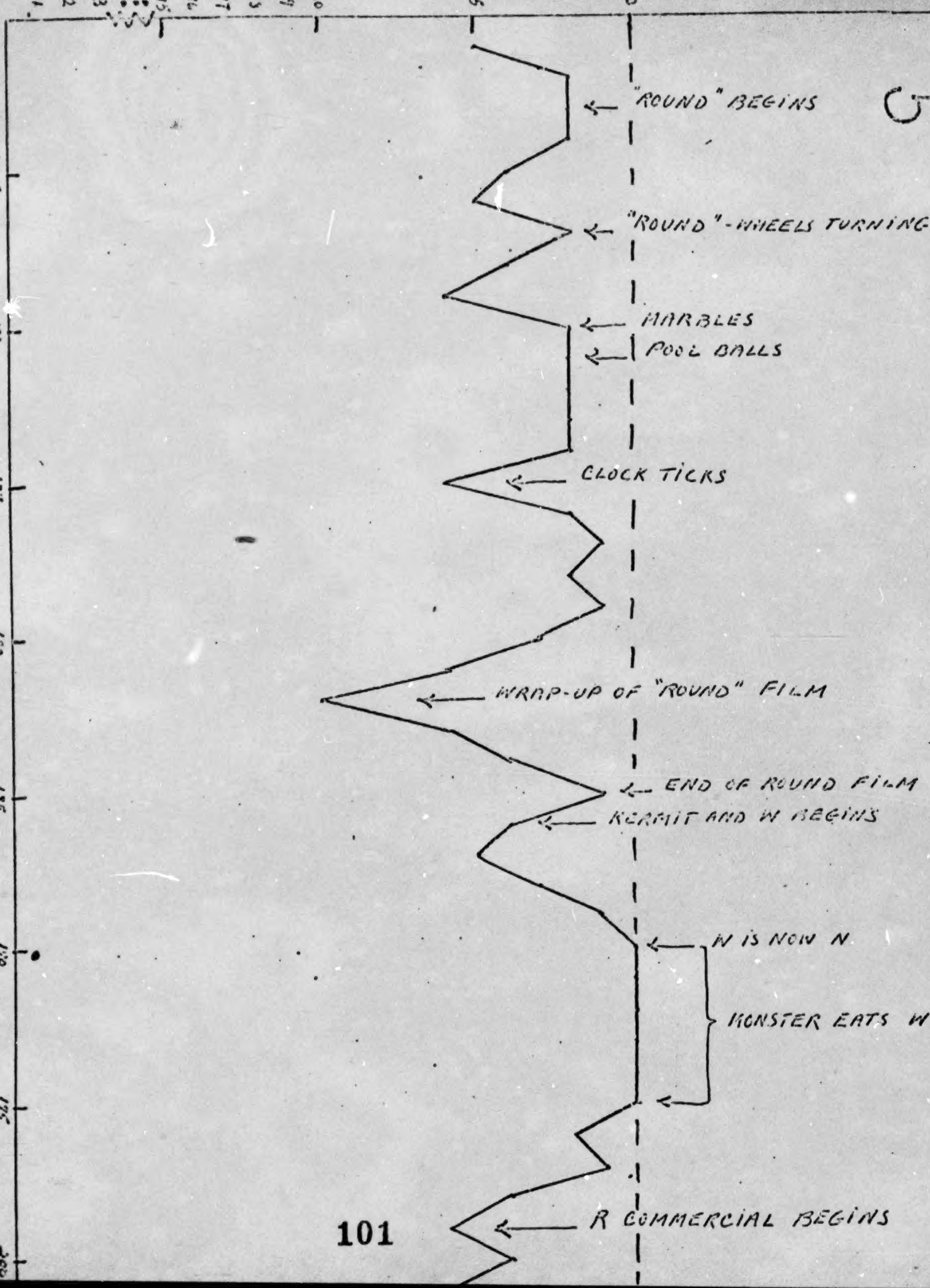
241
245
250
255
260
265
270
275
280
JAMES EARL JONES
J.E. JONES "L, M"
J.E. JONES "O, P"
SHOT TO GORDON, "FOLLOW THE LEADER"
"HERE COMES THAT PLANE AGAIN"
SHOT OF ALPHABET IN AIR
PLANE BIT ENDS
CHILDREN LINE UP FOR "FOLLOW THE LEADER"
"OVER, UNDER + AROUND" BEGINS
SHOW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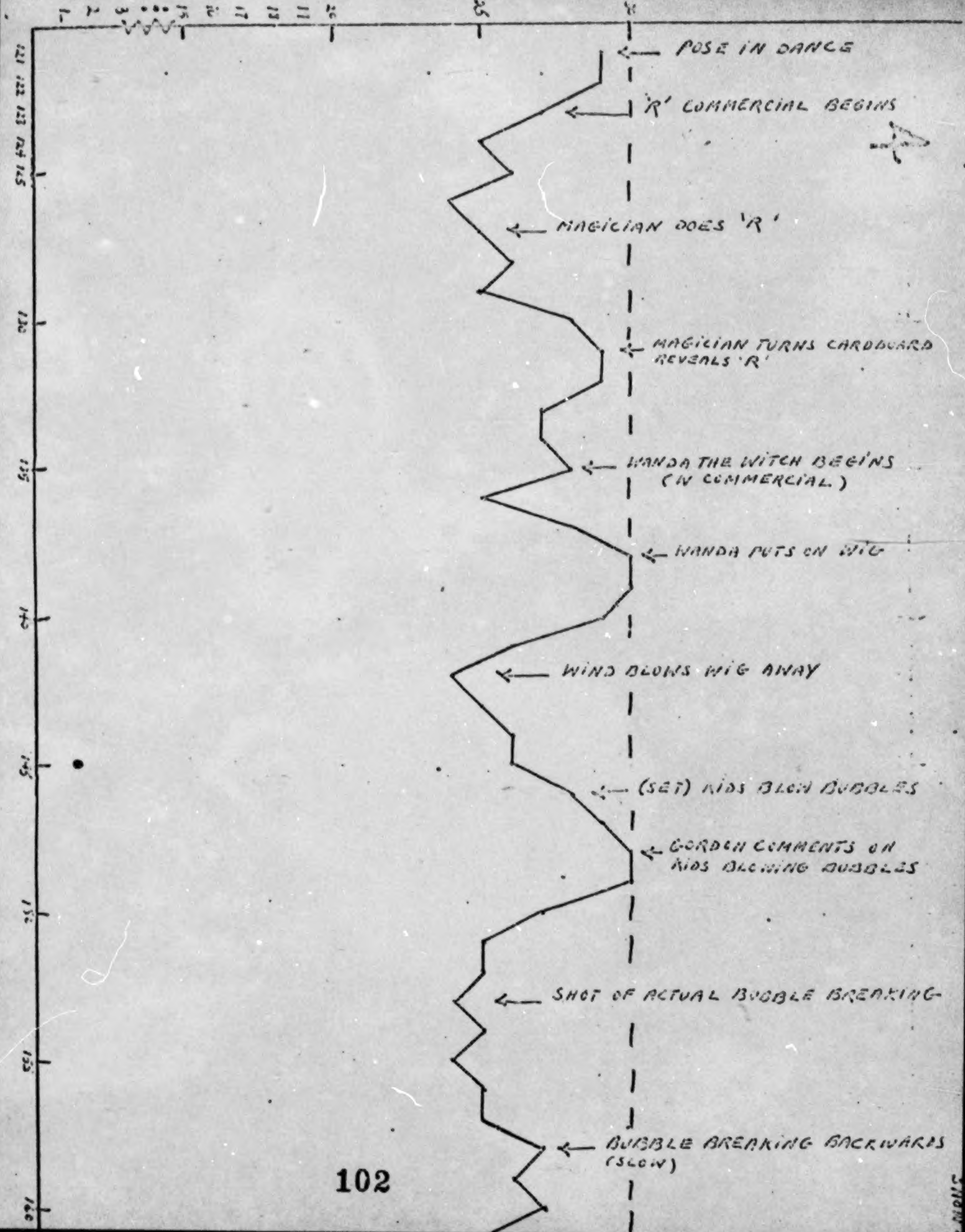
161
162
163
164
165
170
175
180
185
190
195
200
"ROUND" BEGINS
"ROUND" - WHEELS TURNING
MARBLES
POOL BALLS
CLOCK TICKS
WRAP-UP OF "ROUND" FILM
END OF ROUND FILM
KERMIT AND W BEGINS
W IS NOW N
MONSTER EATS W
R COMMERCIAL BEGINS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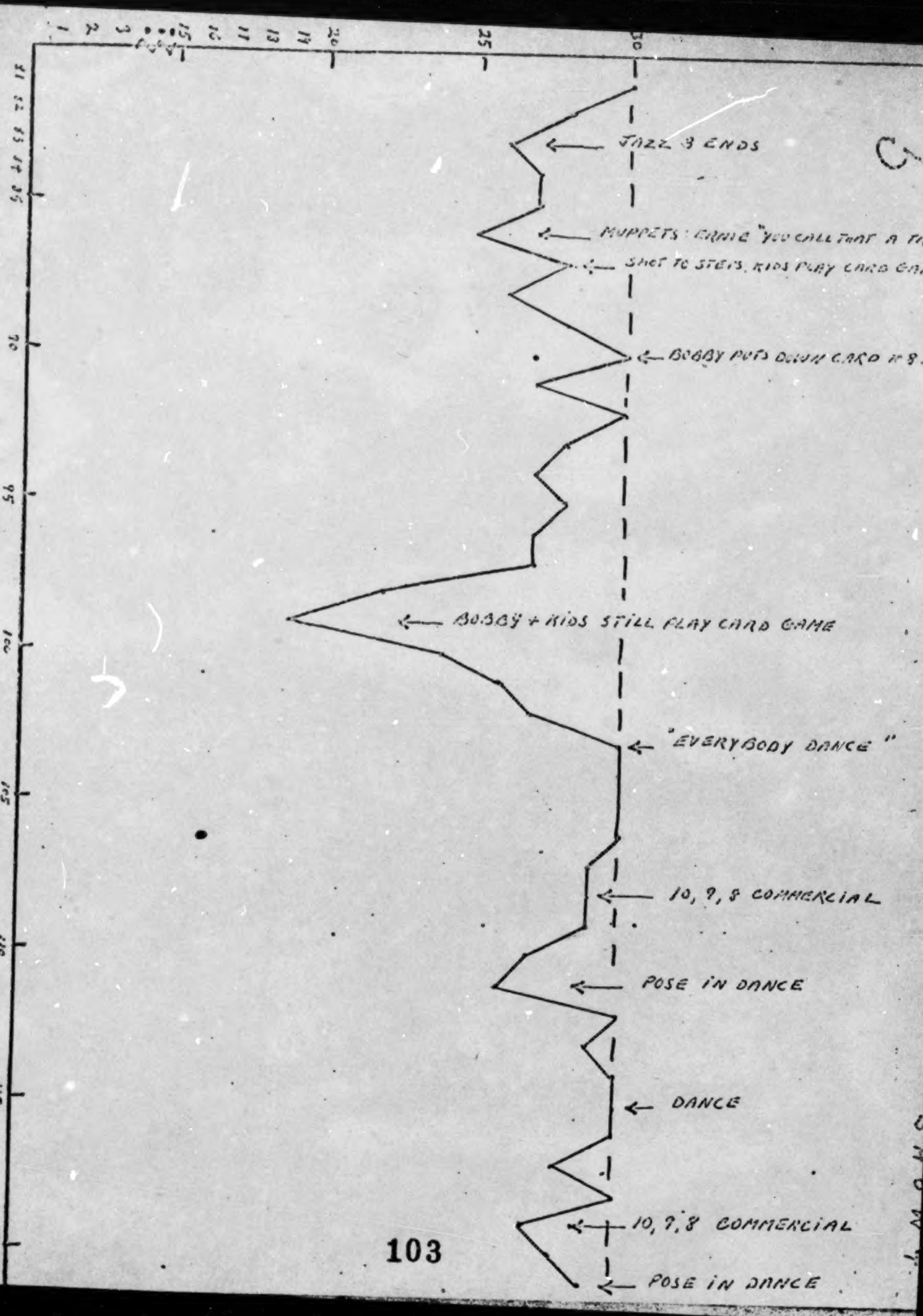
121
122
123
124
125
130
135
140
145
150
155
160
POSE IN DANCE
'R' COMMERCIAL BEGINS
MAGICIAN DOES 'R'
MAGICIAN TURNS CARDBOARD REVEALS 'R'
WANDA THE WITCH BEGINS (N COMMERCIAL)
WANDA PUTS ON WIG
WIND BLOWS WIG AWAY
(SET) KIDS BLOW BUBBLES
GORDON COMMENTS ON KIDS BLOWING BUBBLES
SHOT OF ACTUAL BUBBLE BREAKING
BUBBLE BREAKING BACKWARDS (SLOW)


1
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16
11
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14
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25
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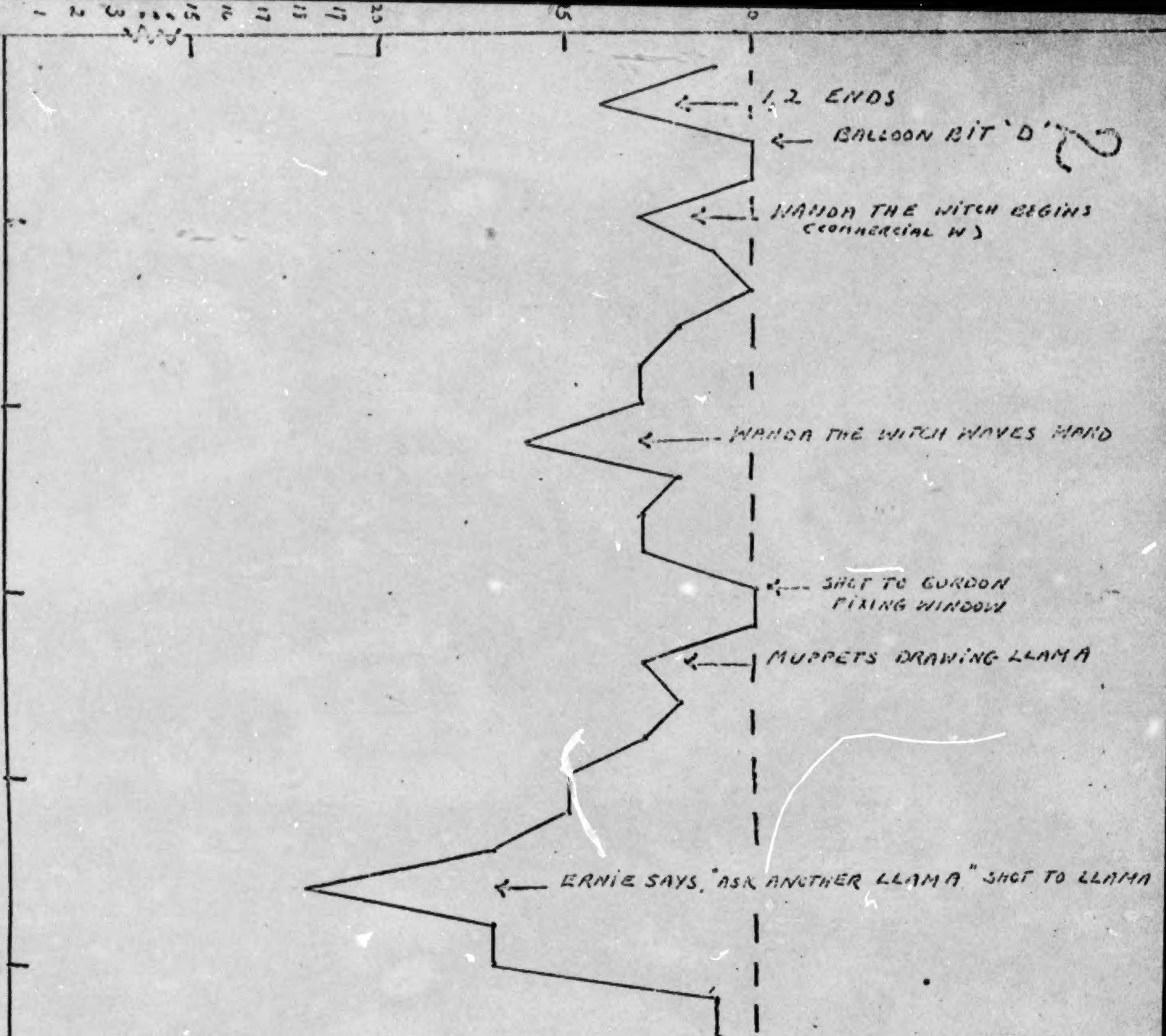
85
90
95
100
105
110
115
120
JAZZ 3 ENDS
MUPPETS: ERNIE "YOU CALL THAT A T
SHOT TO STEPS, KIDS PLAY CARD GA
BOBBY PUTS DOWN CARD # 8
BOBBY + KIDS STILL PLAY CARD GAME
"EVERYBODY DANCE"
10, 9, 8 COMMERCIAL
POSE IN DANCE
DANCE
10, 9, 8 COMMERCIAL
POSE IN DANCE


1
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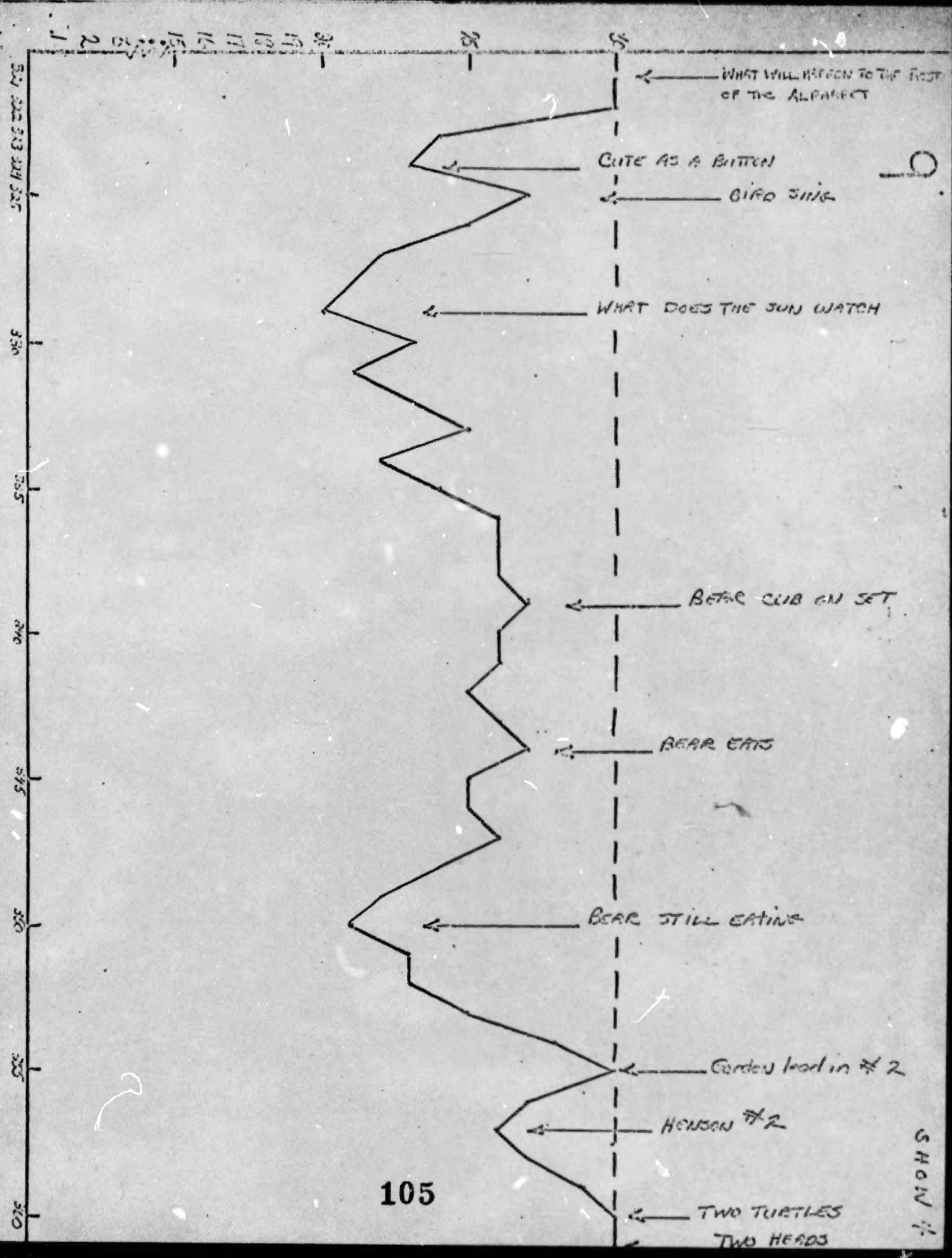
41
42
43
44
45
50
55
60
65
70
75
80
1.2 ENDS
BALLOON BIT 'D'
2
WANDA THE WITCH BEGINS (COMMERCIAL W)
WANDA THE WITCH WAVES HAND
SHOT TO GORDON FIXING WINDOW
MUPPETS DRAWING LLAMA
ERNIE SAYS, "ASK ANOTHER LLAMA" SHOT TO LLAMA
MUPPET ABOUT TO DRAW '3'
JAZZ #3
MUPPET DRAWING '3'
JAZZ 3 (SECOND SHOWING)
JAZZ '3' (MAN JUGGLES BALLS)
SHOW 1


.1
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321
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323
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330
335
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355
360
WHAT WILL HAPPEN TO THE REST OF THE ALPHABET
CUTE AS A BUTTON
BIRD SING
WHAT DOES THE SUN WATCH
BEAR CUB ON SET
BEAR EATS
BEAR STILL EATING
Gordon lead in # 2
HENSON #2
TWO TURTLES
TWO HEADS
SHOW #

G. 1 - N = 4
2 - N = 4
3 - N = 3
4 - N = 2

SHOW #1

3. Opening-writing in cement
    1. N.R.
    2. N.R.
    3. N.R.
    4. N.R.

4. D. - Comm - Dudley
    1. Laughed at end
    2. N.R.
    3. N.R.
    4. N.R.

5. Gordon - Transition Chalk D
    1. N.R.
    2. N.R.
    3. N.R.
    4. N.R.

6. LMB - You Got to Learn Something
    1. very attentive - clapped hands and/or danced
    2. N.R.
    3. attentive - one danced, others bob with beat
    4. "I haven't heard that before".

7. Susan Transition
    1. N.R.
    2. N.R.
    3. N.R.
    4. N.R.

8. D - Comm. - Dudley
    1. very attentive - danced
    2. N.R.
    3. N.R.
    4. N.R.

9. Muppet tag
    1. "That's a clown".
    2. N.R.
    3. N.R.
    4. N.R.

In the New York Day Care Centers four groups of children viewed the five test shows. The groups varied in size from two to four children in a group. As the children watched the shows, their reactions were observed and recorded.

On each of the five test shows the show segments are numbered and labelled. Below this can be found the general reactions of each of the four groups that viewed the show segment. In each case, representative verbalizations and/or actions were recorded for each group. N.R. (no response) was recorded when the children did not respond to the material being presented and their eyes were not necessarily on the T.V. screen. "Zombie" was recorded when the children's eyes were constantly on the T.V. screen but no reaction to the material being presented was observed.

The size of each of the groups and the order in which they viewed the five test shows can be found at the beginning of the observations for each show.

10. D - Comm. - Dudley

    1. "That's the letter D". "No." (after boys on film said "No")
    2. N.R.
    3. all danced
    4. N.R.

11. Muppet tag

    1. "He's a clown."
    2. N.R.
    3. N.R.
    4. N.R.

12. D - Comm. - Dudley

    1. "That's the letter D" - danced
    2. bouncing on couch to music
    3. "That's a D"
    4. N.R.

13. Muppet tag

    1. "The clown" "She put her hand over his face." "She hit him."
    2. laughed when Burt put his hand over Ernie's mouth.
    3. N.R.
    4. N.R.

14. Magician - 3 D's - Big - Bigger - Biggest

    1. "D", "Bigger D", "Biggest D" (repeated words after Randi)
    2. N.R.
    3. N.R.
    4. "is he washing his hands"; another D, another D"

15. Superman - D

    1. "That's Superman."
    2. "Look, Superman"; "A Gorilla"; "He got the lady."
    3. "Superman" start flying about room
    4. "What is Superman doing?"

16. Magician - Newspaper D

    1. "D" (all children repeated "D" after Randi)
    2. laughed, "He tear it."
    3. start to watch, then start fooling as he rips papers
    4. "Why is he tearing up the paper?" "It's magic."

17. Alphabet Song

    1. All kids tried to sing along "She's a Baby." ——
    2. N.R. (attentive)
    3. two fooling - one watching - upset by interruptions.
    4. N.R. - one wanders about room.

18. LHB Alphabet Song

    1. All kids danced. Each child went to screen & said, "That's my daddy."
    2. N.R.

3. all danced
4. all danced (two girls - 16 or so - stop to listen outside door).

19. Gordon Building·Bookcase Leading to Deer Film

1. N.R. - very inattentive
2. N.R. - very inattentive
3. inattentive
4. One zombie - one inattentive

20. Baby Reindeer

1. all children got on floor and imitated baby reindeer, "I'm a baby one."
2. "Look" "A baby deer" "That's the mother." "That's my mommy." "Look at his face." "He's mean."
3. "Hey, everyone look". (watched for a while, then inattentive)
4. "Why did he fall?" "Because he has skinny legs." "What is he doing?" (drinking milk)

21. Gordon Deer tag leading to Buddy & Jim Nail Sketch

1. "I can make a D."
2. N.R. - very inattentive
3. inattentive
4. one zombie; one inattentive

22. Buddy and Jim - Nail Sketch

1. "He's my daddy." - very inattentive to talk. All responded to ballon breaking and spent rest of sketch walking around room and talking about balloon breaking.
2. Laughed when balloon broke and when Jim held hammer the wrong way. "No, Not that way. You have to turn it." "The bird flies like this." (imitated bird flying) "He messed up the picture."
3. "Why did he use the balloon." "They don't know what to do." "They are the ones that popped the light."
4. "Oh, their light blew out." "Not again."

23. Gordon - Bookcase tag

1. N.R. - inattentive
2. N.R. - inattentive
3. inattentive
4. zombie

24. D - Dudley

1. N.R. attentive - zombie
2. N.R. " "
3. inattentive
4. zombie

25. Gordon - Everybody Dance

    1. one kid danced, others laughed at muppets.
    2. all kids danced
    3. all dance - laugh and point to muppets
    4. N.R.

26. Everybody dance - Muppets Bob, Susan, Gordon

    (refer to 25)

27. Gordon - That's another D word

    1. N.R.
    2. N.R.
    3. N.R.
    4. N.R.

28. D - Dog

    1. zombie
    2. attentive - laughed at end
    3. N.R.
    4. N.R. - inattentive

28A. Bob Reading "Where the Wild Things Are"

    1. "Look at his face." "That's his boat." "That's his dragon." (oohed at monsters)
    2. Talked through whole story - wandering around room.
    3. inattentive (fooling)
    4. inattentive

29. Susan - Song "If You're Happy & You Know It"

    1. All children imitated Susan's motions.
    2. " " " " "
    3. All try to sing and all imitate motions.
    4. One knew song - sang along - both imitate.

30. Susan - Lead in to Round Film

    1. inattentive
    2. inattentive
    3. inattentive
    4. zombie

31. Round Film

    1. danced "bubbles" "telephone" "clock" "pennies" danced to Frisby music - End. "She's got bubble gum" - laughed.
    2. "A Charlie Brown yo-yo" - "A Bubble" "Money Gimme" Frisby scene - all kids started running up to screen to try to get Frisby - End. - Bubble. "Oh, look." Laughed.

(Cont.)

3. zombie for part of it, then inattentive
4. inattentive

32. Susan - Triangle & Square Lead In

1. very inattentive
2. very inattentive
3. inattentive
4. one zombie - one inattentive

33. Triangle & Square Film

1. laughed & danced with triangle - counted sides of square "square as a box"
2. danced
3. inattentive (fool on floor)
4. "a triangle who loves to dance" laugh, zombie

34. Gordon - Fixing cement Lead In to Jazz #2

1. very inattentive
2. very inattentive
3. inattentive
4. N.R.

35. Jazz #2

1. danced
2. danced
3. zombie
4. danced

36. Bobby Lead In to Henson #2

1. "2 Knees" "2 feet"
2. danced
3. N.R. talk to each other
4. N.R. fooling

37. Henson #2

1. "He's got ice cream." "He fell down." Laughed.
2. danced "Butterflies" Laughed when man fell down.
3. attentive - laughed at end.
4. count objects, 1 - 2 - 3 fall at end.

38. Susan & Bobby - Two Parrots Lead In to Animal Pairs

1. inattentive
2. inattentive
3. inattentive
4. inattentive (still on floor)

39. Animal 2's film

1. Running up to screen yelling, "This is mine."
2. "Look at the monkeys." "Tigers" "Look at the bears."

Cont.)

3. inattentive
4. "Two what?" upset when one blocking T.V.

40. Jazz #2

    1. "2" "2" danced
    2. "2" "2" "danced ollk at the robbers:
    3. attentive - danced a little.
    4. danced

41. Muppets - 2 noses

    1. "He don't got no nose."
    2. "He don't got his nose."
    3. "Look what he did."
    4. "Two noses"

42. Henson #2

    1. "He has two hats." "She fell down and the stuff came down." Laughed.
    2. Danced "2" "2" "Gimme an ice cream cone."
    3. All count 1 - 2 - 3 at each segment - fall with man.
    4. Zombie till fall the end.

43. Countdown

    1.
    2. laughed
    3. attentive
    4. zombie

44. Carol Burnett

    1. zombie
    2. zombie
    3. inattentive (fooling)
    4. "Who is the funny lady?" "The witch."

45. Newspaper bit

    1. very inattentive
    2. very inattentive
    3. inattentive (fooling)
    4. inattive

46. Muppets - Batman - MFA bit

    1.
    2. "Oh, look, Batman." Started singing Batman song.
    3. inattentive (fooling).
    4. inattentive (talking).

47. M.F.A. - Newspaper

    1. very inattentive
    2. periods of zombie & inattentive - laughed at MFA chasing Dunce & Dropout.
    3. inattentive (fooling on floor).

(Cont.)

4. inattentive

48. Baby Raccoon

1. "That's a raccoon." Attentive in beginning, inattentive near end.
2. "It's a raccoon." "Grapes" "A little raccoon." "He's getting a bath." "He's washing it 'cause it's dirty."
3. N.R. attentive.
4. One zombie - one inattentive

49. One hummed theme song while returning to room.

2. N = 3
3. N = 3
4. N = 3

SHOW #2

1. Opening
    1. inattentive
    2. zombie
    3. zombie
    4. zombie

2. Bobby - pitching pennies
    1. inattentive
    2. inattentive
    3. zombie
    4. "Why are we watching T.V.?"

3. Henson #3
    1. danced & sang "3". Laughed at pigs. "He's going to fall." Laughed.
    2. One child danced. Two sang along "3 Alligators" "Eggs" "2 Pigs" "He's going to fall." Laughed.
    3. zombie
    4. Laughed when man falls.

4. Countdown
    1. zombie
    2. zombie
    3. zombie
    4. zombie

5. Henson #3
    1. counted when #'s came on. "He's going to fall." Laughed.
    2. Sang along "See the alligator." "It's a chicken." "He's going to fall." Laughed.
    3. All count 1 - 2 - 3 -- Laughed at man falling.
    4. Laughed at fall.

6. Gordon
    1. inattentive
    2. zombie
    3. zombie
    4. zombie

7. Alphabet Song
    1. very attentive - two kids tried to sing along.
    2. zombie
    3. zombie
    4. zombie

8. Muppets "W"
    1. "That's an ABC" - very attentive

(Cont.)

2. "Look" - very attentive
3. Laugh
4. N.R.

9. "Wanda the Witch"

1. very attentive - one kid started to sing Alphabet Song.
2. "Look at the Witch" - zombie
3. zombie
4. zombie

10. Muppets "W" - pie

1. zombie
2. "He's got stuff on his face." - zombie
3. Laugh
4. Zombie

11. "Wanda the Witch"

1. Zombie
2. Zombie "The witch again."
3. Zombie
4. "W" "There is another." "Two more W's."

12. Gordon - Story Big

1. attentive - "That's a fish." "A whale" "That's a butterfly." "That's a shoefly."
2. "Look at the cat." Called out names of animals.
3. One - tell me a list of things bigger than he is.
4. inattentive

13. Clean

1. "She's brushing her teeth." "You have bad breath." "A monkey" "A bear jumping in the water." "That's sknow."
2. "Look at that. She's taking a bath." "A tiger." "A monkey" "See him go under." "A car" (imitated windshield wipers with arms) "Look snow" "Gimme those boots."
3. Zombie
4. "I brushed my teeth this morning" "Me too." Laughed at animals.

14. Solomon Grundy

1. Zombie
2. Zombie. "Look at him. He's taking a bath."
3. "He is dirty." "I hate baths."
4. "Tuesday we go to school." (Everybody)

15. Muppet Wash

1. Zombie
2. Followed children on show. "Look at that gorilla."
3. Jump and laugh at wash; pretend to wash.
4. all imitate

115

(cont.)

16. "Wanda the Witch"

1. attentive - "blew it away" "She's bald."
2. attentive - "Not again." "I'm going to kill that worm."
"A spider" - imitated witches - laughed at end.
3. still washing
4. N.R. attentive

17. Buddy & Jim (lightbulb)

1. very attentive - "I can't reach it." "Get on tippy toe."
"The other side." (box) "Turn it, will you." "Turn it."
"You shouldn't put it like that."
2. Zombie - "The light broke."
3. Fooling - "Can I leave?"
4. Laugh when blew out a second time.

18. Mr. Hooper - Balloons & High Gam

1. Zombie - Laughed when Mr. Hooper broke balloon.
2. " " " " " " "
3. "What are those people named?" All running around.
4. "It made another one by itself."

19. LMB - Freedom, Peace, Love & Joy

1. danced
2. zombie
3. "I know that song." Listened for half, then fool.
4. All danced.

20. Gordon & Bobby "W" with fingers

1. "Look they made a 'W'."
2. Inattentive
3. Inattentive
4. Inattentive

21. "Wanda the Witch"

1. Very inattentive - jumping around room.
2. Very inattentive - "Not again." "I'm going to kill that worm."
"It's going to blow away." "It blew away." Imitated witch laughing.
3. Inattentive
4. "The witch. She should hold on tight."

22. Bobby - Card Trick

1. Inattentive - "Where is her cat."
2. Sang 1 - 2 - 3 from Henson's "3" film.
3. Inattentive
4. "Oh, a '3'." Attentive

23. Jazz #3

1. danced - "monsters" "2 butterflies"
2. Stamped feet - imitated juggler - "3 - 3"
3. Zombie - "When will it hurt someone?"
4. Sing along.

24. Countdown

1. Zombie
2. Zombie - laughed at end
3. Zombie
4. Zombie

25. Henson #3

1. danced - "3 - 3 - 3" "1 - 2 - 3" 2 hats, 2 turtles, 2 eggs. Laughed and imitated Baker falling down stairs.
2. danced - imitated juggler - counted 1 - 2 - 3. 3 peas. Those are alligators. 3 eggs. "I don't like that."(pigs) laughed at end.
3. "Now he will do it." all fall.
4. "3 - 3 - 3" all fall.

26. Muppets

1. Zombie
2. Laughed when they bumped into each other.
3. inattentive
4.

27. "Wanda the Witch"

1. very inattentive - running around room.
2. "Not again." "I'm going to kill the worm." "It's going to blow away." - imitated the witch laughing.

28. Bobby Blocks

1. "They're building a house." "I'm eating blocks." "A triangle."
2. "Triangle"
3. "What are they making?"
4.

29. Shapes

1. "He's making a tree." "A tree." "I said it first." "A house." "That's not a house." "A triangle." "A boat." "A boy." "A man." "A boat." "It goes around." (pin wheel) "You 'posed to turn it around."
2. Got up and pointed to triangle - "3 triangles - That's Christmas." "Hey, look at that." "A boat." "I want that boat." "My Mommy took me on a boat." "An airplane." "What's that?" (pinwheel)
3. inattentive
4. "A Christmas tree" "An American Red Cross." "boat" "a windmill" "No, it is not." "Yes."

30. Susan △ △ ○ - W W 3 .

1. All kids went up to screen and tried to point at & 3.
2. " " " " " " " " " " " " "
3. Inattentive
4. Children run up and point to what's different. "Stop moving." Upset when each one shown alone, so couldn't tell what's different.

G. 1. 4 2nd
   2. 3 2nd
   3. 3 3rd
   4. 2 3rd

SHOW #3

1. Opening
    1. Zombie
    2. Zombie
    3. Zombie
    4. Talk to each other
2. Gordon & Bobby - Fishing Rod
    1. Zombie
    2. Zombie
    3. "What is he doing?"
    4. "Those men are always there."
3. Alphabet Fishing
    1. Zombie
    2. Zombie - "He's fishing."
    3. "Why did he put them in the pan?"
    4. "My father takes me fishing." "What is he doing?" "Cooking soup."
4. Muppets
    1. Zombie
    2. Zombie
    3. "I am learning my A B C C's."
    4. "They both have noses again today."
5. Egg on Knee
    1. Zombie
    2. Zombie
    3. Laugh at Lizard
    4. Zombie
6. Muppets
    1. Zombie
    2. Zombie
    3. Inattentive
    4. Zombie
7. "R" Commercial
    1. Zombie
    2. Zombie - "He's in the boat."
    3. Attentive
    4. Attentive - "Where did he go?"

31. Muppets

    1. Zombie
    2. Zombie
    3. Inattentive
    4.

32. M.F.A.

    1. Danced to song, "Look At The Big Money." Laughed when MFA rode tricycle - 2 kids very attentive; 2 kids very inattentive. "That's the bady guy robbing money." "Kill, kill, kill."
    2. "Somebody going to break it." Laughed when he pulled down bookcase - very inattentive to rest of MFA.
    3. Inattentive
    4. Ones takes a nap - other three fool and talk about pies.

33. Baby Mountain Lion

    1. Ran up and kissed the screen, but very inattentive through most of bit.
    2. Attentive in the beginning. "Look at the baby." "He's drinking a bottle, but inattentive through most of it.
    3. "It's funny looking."
    4. Sits back up. "Oh, look at the baby."

34. Wet & Dry

    1. inattentive - running around room.
    2. Zombie
    3. inattentive
    4. inattentive

35. Batman Clip

    1. "There go Batman." "Where's Robin." "Where is the boy Worder?" One kid did a Batman imitation while other kids watched him.
    2. Zombie - "Look at Batman."
    3. "Why is he there?" "Is he next?"
    4.

36. Gordon & Cat

    1.
    2.
    3. "It's going to fall." "Will you get me a kitty?"
    4. "Meow: "Are those your children?"

37. Susan's Song

    1.
    2. Zombie
    3. N.R.
    4. N.R.

(Cont.)

29. Bobby - Rectangle

1. Counted the corners of the letter.
2. Zombie.
3. Inattentive
4. Attentive

30. Rectangle

1. "Wow" "Shut up" "Wow" "Shut up", etc. "They're going back." (backwards). "It's snowing." "Look at that man." (Beefeater sign). Danced to drums.
2. Danced - "It's snowing." Started singing Alphabet Song.
3. "Look its snowing." "I want winter." One watch (diff. child then - 28) others inattentive.
4.

31. Countdown

1. Zombie
2. Zombie
3. Attentive
4.

32. Jazz Numbers #2

1. danced "2"
2. danced "2" "2ooh"
3. dance
4.

33. Countdown

1. Zombie - "They did that 2 times."
2 Zombie
3. "We just saw this..." "Oh."
4.

33A. Carol Burnett

1.
2.
3. inattentive
4.

34. Gordon - Randi Rabbit

1. Rabbit - "I wish I had him." "Does he bite." He wants something to drink." "He eating carrots."
2. "A rabbit" "He's a baby rabbit." "My rabbit is big." "She's sleepy." "He's a small rabbit." "Like that." (one kid got on his knees and pretended to be a rabbit) "She's going to open her mouth." "Where's the rabbit?" "This is the ABC."

4. zombie

16. Milk Film

1. "That's another pussy cat." "Ababycow" - Laughed when cow swirted girl - very attentive. "He took the milk out of the cow and he drink the milk."
2. "That's my cat." "He's got two." "Look at the baby cow." "She's eating food." "The black one is mine." "There's two cows." "The baby cow is mine." "Where is his blood." "He's making pee pee." "He pour the milk at the girl." "Look at the water." "He's going to get bigger and bigger." "That's my cow."
3. "I like those cows." "What is he doing." "That is my song." "Why did he do that." "What is that."
4. One attentive, two inattentive.

17. Jazz #2

1. "I saw that last night." "Look." "Those are robbers." (spies)
2. All kids danced
3.
4. danced

18. Henson #2

1. danced - very attentive
2. danced - "ice cream", "two turtles", "1 - 2 - 3", "1 - 2 - 3", "2 butterflies" "He's going to fall down." (Imitated baker falling down steps) Laughed.
3.
4. All narrate and fall.

19. Muppet twins (piano)

1. "Froggies" danced. Screamed when piano ate muppet "monster mouth"
2. "That was a monster."
3. One girl sings "Mary Had a Little Lamb". All dance till puppet eaten, then very attentive.
4. Attentive - "He ate somone."

20. Through

1. attentive - laughed at end.
2. attentive - laughed at end.
3. some inattentive - "Quiet let me see this."
4. Inattentive

21. Everybody dance

1. danced
2. danced
3. danced
4. "She's a doll." (about Susan) - attentive - didn't dance.

(Cont.)

8. Muppets

    1. Zombie
    2. Zombie
    3.
    4. Attentive

9. "R" Commercial

    1. Zombie
    2. Zombie - "He fell down."
    3.
    4. Attentive

10. Muppets

    1. Zombie
    2. Zombie - "He put his hand on his mouth."
    3.
    4. Attentive

11. MFA Clock

    1. "They're the bad guys." "He's bad." (D & D in hideout)
    2. "We saw that one." "There's a clock." "Look at his nose." One kid said alphabet at end with song and imitated painter when he kissed his fingers.
    3. Kept pinning medals on one another. Watch on and on - no comments.
    4. Watch introduction - inattentive to rest

12. MUPPETS

    1. Zombie
    2. Zombie
    3. Inattentive
    4. Inattentive

13 Gordon, Susan & Bobby - "Row, Row, Row Your Boat"

    1. Zombie
    2. Zombie - Clapped at end of song.
    3. All sang
    4. Try to sing

14. "R" Commercial

    1. Zombie
    2. Zombie
    3. Still singing different songs they knew
    4. "He went again."

15. Susan, Mr. Hooper & Cat

    1. "That's a pussy cat." "I like cats.: "Do you like cats?"
    2. Zombie
    3. Very attentive - demonstrated milk rising slowly & falling

(Cont.)

3. attentive - "What happened?"
4. "When you hold him like that, it doesn't hurt." "Why?" "Because my mother said so." "Well, mine didn't."

35. "R" Commercial

1. "R" "a talking dog."
2. Imitated robber running through whole commercial.
3. Inattentive
4.

36. Everybody Dance

1. danced
2. danced
3. danced
4. danced

37. Eggs & Cookie

1. Counted with boy up to 9.
2. Counted with boy up to 9.
3. attentive
4. All count till 9, then discussed why cookie there.

38. Henson #'s 2

1. danced "1 - 2" "2 turtles" "2 heads", "2 hats", "2 butterflies" All children laughed & fell down at end.
2. Counted & danced "1 - 2". Laughed at end.
3. inattentive
4. Count and dance

39. Bobby's Song

1. "I'm going to kick that ugly Bobby."
2. danced
3. inattentive
4. danced

G. 1. N - 3 fifth
   2. N - 4 fifth
   3. N - 3 fourth
   4. N - 3 fifth

SHOW #4

1. Opening

    1. Zombie
    2. Zombie
    3. "Are we going to see the letter 'R'?"
    4. Zombie - "How is this show on again?"

2. Baseball Game

    1. "Baseball" - 1 child imitated Bobby throwing. "You bust my window." "They are playing baseball." Laughed at Mr. Hooper winding up.
    2. "They're playing ball." Zombie.
    3. "I want to play."
    4. Zombie.

3. 1-2 Erase Your Shoe

    1. Zombie - "He's saying the ABC's."
    2. Zombie.
    3. Zombie.
    4. Zombie.

4. "D" - Dog

    1. laughed at end "D".
    2. Zombie.
    3. Zombie.
    4. Zombie.

5. "Wanda the Witch"

    1. "I got the ABC Book." "Be Quiet." "It s gonna blow away." (wig). "They're dancing."
    2. Laughed when wig blew away.
    3. "The witch again." "Why didn't the witch come yesterday."
    4. "Those are 'W's'." "Bewitched is different." "Why can't she get another wig."

6. Gordon - Window

    1. "I want to see the alphabet."
    2. Inattentive.
    3. Inattentive.
    4. "Whose TV is that."

7. Muppets - drawing a picture.

    1. "What's that?" Zombie.
    2. "He's gonna draw the ABC's."
    3. Inattentive
    4. "Now he is making a D."

8. Llama

    1. "That's a llama.

(Cont.)

    3. "Oh, look."
    4. "That's a cow." "That's a horse."

9. Jazz #3

    1. "Hey look at that." (juggler)
    2. danced
    3. count, then dance
    4. Zombie

10. Muppets

    1. Zombie
    2. "Let's see." (picture)
    3. dancing
    4. "Oh, those guys."

11. Jazz #3

    1. "Not again." (tapped feet). "What's that." (devil)
    2. One kid danced & others snapped fingers.
    3. Count - attentive
    4. "That's a car for racing." "That is a monster." "Eleven is next."

12. Muppets

    1. Zombie
    2. "What's that?" "A tree."
    3. "A three" "No a tree." "That's not right."
    4. "They jibber jabber."

13. Bobby & Card Game

    1. "Another 7." "One"
    2. "The cat comes out of the tree." "They're playing a game." Zombie.
    3. "That two is upside down."
    4. "There is a three." "Those are cards." "I like this show." "I have animal cards."

14. Everybody Dance - Pose

    1. Zombie
    2. 1 kid danced, other zombie.
    3. dance
    4. dance

15. Countdown

    1. "It's gonna fall down."
    2. Zombie
    3. Very attentive.
    4. Sit - attentive

16. Dance

    1. Zombie

2. Zombie
3. dance
4. dance

17. Countdown

1. "It's gonna fall down."
2. mouthed - numbers
3. very attentive
4. sit, attentive

18. Dance

1. Zombie
2. 1 kid danced others zombie
3. dance
4. dance

19. Countdown

1. "It's gonna fall." "He's a rocket ship." (laughed)
2. "It's gonna fall." "I told you."
3. Very attentive.
4. attentive - try to count backwards.

20. Dance

1. Zombie
2. 1 kid danced, others zombie
3. dance
4. dance

21. "R" Commercial

1. "The letter 'R'." "dog"
2. "The letter 'R'." "Rowboat" "A talking dog."
3. Fall when boat sinks.
4. "Good heavens , a talking dog."

22. Randi "R"

1. "R" "R" zombie when Randi turned R.
2. "The letter 'D'. "The letter 'R'.
3. attentive
4. inattentive

23. "Wanda the Witch"

1. "It's gonna blow away." 1 kid imitated witches laugh. Other kids zombie.
2. "A weasel." "It's not going to work." (well) -'blew it away" "baldy"
3. "Oh, boy."
4. "Is it going to be on again." "W's". "We could make a snowman.

24. Carol Burnett

1. One kid laughed, others zombie.
2. inattentive
3. "She's funnly."
4. "She looks pretty." "She looks stupid."

25. Bubbles & Kids

1. "They make bubbles." "I bust the bubbles."
2. Bubbles." "I have those in my house."
3. Attentive. "What happened?" "I do that."
4. "If you do that outside, they blow way high." "I do it like this."

26. High Camera Bubble

1. zombie
2. "Oh, look." "It's gonna pop." "It came back."
3. zombie
4. "How does that break like that." "One of those got in my mouth and it taste awful."

27. Round

1.
2. "Coca Cola." "Charlie Brown." "Bubbles." "Ohh" "Pow" "Money" "A quarter" "Gimme a quarter." "Boom" (balloons) "bubble gum" "Pow"
3. "When is it going to be finished?" "That's round." "That's round." "See the bus." "Is it going a long time?"
4. "See that's what I do." "My mother keeps calling people." "Do you like to play frizzly?" "Bubble gum."

28. Kermit - W

1. zombie
2. "Kermit" "What's that?" (monster) He went that way and he went that way." end.
3. Trace "W" on TV. "The 'W' is broken." "That is a one."
4. zombie

29. "R" Commercial

1. zombie
2. zombie
3. "He went down."
4. That's a boat."

30. Gordon "R" Game

1. "Let's go to sleep." "I want to see the alphabet."

2. "I'm still here." "What game?" Hide 'n go seek." One kid danced. "A radio." "Row boats."
3. Play, eat each other up. "It's him again." fool.
4. Inattentive

31. Ten Little Greeblies

1. "Butterfly", zombie.
2. "Butterfly", zombie.
3. "Stop and watch."
4. Zombie.

32. Kermit "W"

1. "He's marching." Laughed at wrestling. "That's a butterfly." Two boys started wrestling.
2. Zombie. "Wow" at end.
3. Attentive. Laugh during it
4. "There's a 'W'."

33. Susan ABC Song

1. zombie
2. 2 kids sang 1st time. All kids sang 2nd time.
3. Sing both times.
4. Sing both times.

34. James Earl Jones ABC, etc.

1. 1 kid FGHIJKLMOP - 2 kids, QRST - 3 kids, UVWXYZ. One kid sang ABC song at end.
2. "Baldy." "Baldy Head." One kid, TDD - 2 kids, HIJMGPRSTEUVLCWXU.
3. One child says right after picture - others right after Jones at P - "Darryl you know these?"
4. Say right after Jones - argue about his being wrong on some

35. Gordon's Plane ABC's

1. "A Helicopter" Zombie
2. Zombie
3. "That's enough." "Again" "Slow down."
4. "Is it going to come down."

36. Over-Under-Around Film

1. "I could do that." "He's gonna stick his head in the bucket." Laughed. "I could do that, I could do that by myself."
2. One kid danced. Laughed when boy walked into street. "They're running." Laughed when Jimmy fell. "The water is going to fall on him." Laughed. "This is good."
3. Laugh - start going over, under & around each other.
4. Inattentive.

37. Gordon' Story - What Kind of Feet Does a Bear Have?

1. "a monkey" "He's a clown." "It's gonna rain." "Go to sleep." - very inattentive.
2. Very inattentive - playing with each other. "Elephant: "Clown" "Mouse"
3. Inattentive - still over under around
4. Inattentive - all start counting - Troy backwards to 4.

38. Bear

1. "Look a bear." "He's a small bear." "He put the foot on the floor." Gimme some food." "The bear bit me, ouch." "He's gonna get his hands dirty."
2. "A bear." Two kids fighting, two kids very attentive. "He's eating water." "He's eating lots of food."
3. "What's that?" "Bears are bigger." Inattentive part of the time.
4. "That is not a toy." "He is holding the dog." "The bear wastes food." "My mother would spank him." "I look at Mission impossible at home." "He is cleaning the floor."

39. Henson #2

1. "Gimme that." (ice cream) "2 turtles." "2 butterflies" "1-2". "He's gonna fall down." Laughed.
2. Danced - 2 turtles, 2 heads, 2 pigs, 2 hats, 2 butterflies (call out things before they appeared) imitate guy falling & laughed.
3. Say numbers, count. Fall at end.
4. Sing and fall.

40. Muppets

1. "That's you Alfonso." "I put on pie on your face."
2. "He went like this." (imitated guy falling in Henson #2, other kids inattentive & fighting with each other.
3. Inattentive - fooling still.
4. Attentive

41. M.F.A. Calendar

1. "LMNOP" Laughed when he broke door. "That's Superman." "That's Clarke Kent." imitated door painter kissing fingers, 2 kids jumping ~~up &~~ down. One kid imitated MFA getting medal pinned on - very inattentive to rest of film.
2. Imitated guy kissing his fingers - inattentive to main story. All kids running around room.
3. Inattentive - still fooling.
4. Turn somersaults. "My man has clothing like that." "Clark Kent is Superman." Inattentive . "He is going to bust that door." "You open a door like this." Runs into hall.

42. Gordon - dance

1. inattentive
2. "That white boy don't know how to dance."

(Cont.)

3. dance
4. dance

43. Monkey Film

1. "A monkey." Laughed - imitated monkey. "I got a monkey he can do that."
2. "A monkey." "That's you." "That's me." Jumping out of seats and pointing at monkeys on screen.
3. Attentive - imitate monkey.
4. dance.

3. "Is is finished?" - "Can I watch tomorrow?"

7. Theme Song
    1. zombie
    2. clapped hands
    3. "That was supposed to be first."
    4. Inattentive
    5. zombie

8. Henson #2
    1. danced - called out 2 ice cream cones, etc. before they came on. All fell down at end. Laughed.
    2. Counted & clapped hands - named things & counted. Laughed when guy fell down.
    3. Narrated and fall at end.
    4. Count - and name things before narrator - fall at end.
    5. fall at end.

9. Mr. Hooper - Gordon - lollipops
    1. Counting - zombie
    2. "Pencils" "8" "Gimme Some" "one lollipop", zombie till end.
    3. zombie
    4. zombie - "That's 3 lollipops." - Holds up 3 fingers.
    5. zombie

10. Henson #3
    1. danced - sang 1 - 2 - 3 and called out names of things. Laughed at end.
    2. Sang song & clapped hands "3 - 3 - 3 - 3" - 2 kids imitated juggler "3 peas". Laughed at end.
    3. Sang along.
    4. dance and say things after narrator.
    5. zombie

11. Gordon (3 lollipop sticks made △)
    1. "a triangle"
    2. "What is he making?"
    3. zombie
    4. inattentive
    5. zombie

12. Shapes
    1. "Watch a tree." "a cookie" "That's the boat." "a little boat" 2 boys running around room through whole film.
    2. "2 triangles" - "a tree" "There are two triangles." "He mess it up." Laughed. "What's that?" "It's the same thing." "That's the triangle." "He's going to make a boat." "Oh, he mess it up." "Gimme the boat." "A helicopter" (pinwheel) "It goes round." "It's a triangle."
    3. "A Christmas tree." "Look out, I can't see." "That's a square, not a triangle" "a boat" "a windmill" "no a butterfly" "No."
    4. Inattentive
    5. Zombie

G. 1 N - 4 fourth
2.N - 3 "
3.N - 2 fifth
4.N - 2 fourth
5.N - 1 fifth

SHOW #5

3. Upon entering room, "I like to watch this TV."

1. Imagination Countdown

1. zombie
2. zombie
3. zombie
4. zombie
5. zombie

2. Upside Down Muppets

1. zombie
2. "He's upside down." "The milk don't fall." "I really like this show."
3. "He is upside down." "Is he walking upside down?"
4. "He is upside down." "His milk will spill."
5. zombie

3. Imagination Countdown

1. zombie
2. One child counted, others zombie.
3. zombie
4. zombie
5. zombie

4. There's something wrong foot & car

1. "Look at the tiny car." "I can tie my shoe."
2. "A car." "She got sneakers." "That's too little." "He's tieing his shoe." "I can tie my shoe." "He tie his shoe."
3. zombie
4. "I can tie mine .. see."
5. zombie

5. Imagination Countdown

1. zombie
2. One child counted - others zombie,
3. zombie
4. inattentive
5. zombie

6. "1 - 2 Erase Your Shoe"

1. zombie
2. zombie
3. "I am learning my ABC's."
4. attentive
5. zombie

13. Bobby's Song "Feeling Groovy"

1. "Is that Bobby?" "Look a letter box - 2 boys fighting through song.
2. inattentive
3. zombie
4. inattentive
5. talked to me

14. High Camera Ball

1. "He's going to do it again - watch." Two boys imitated Kenny walking slowly.
2. very attentive - "It bounce back and it bounce to."
3. attentive
4. inattentive
5. "That's the ball." "It's going slowly." "Look."

15. Bird Film

1. He's eating food." "He's making a house." All 4 kids got on floor & imitated virds walking.
2. "What's that?" One kid danced. "Look at that." He jumping." "I'm jumping like him." All kids jumped up & down and fell on floor and laughed.
3. "What kind is that?" "What kind is that?"
4. inattentive
5. Laugh. "I saw that kind of bird in the zoo." "What is that kind?" "oh, it's dancing." "Look."

16. Egg on Knee

1. "There's an egg." - very attentive. Two kinds danced with lizard.
2. Two kids danced with lizard. "That's an alligator."
3. One child points to letters. "I can't see." Dance with lizard.
4. zombie
5. zombie

17. Live Lizard

1. "Ooh, a turtle." All kids got on floor and pretended to be frogs, screaming, "froggy, froggy". "He's got a big tail." "I'm going to pull it."
2. "He's a lizard." "That's an alligator." "It's a lizard." "It's an alligator, etc." "I got a cowboy hat at my house." "Me, too."
3. One child read magazine. "What's that?" "Doesn't he bite?"
4. "That's real."
5. "A frog." "He has a tail." "His tail is bigger than he is." "It's bigger than a frog." "Oh." "Lock."

18. Lizard Film

1. Kids started to scream and said, "an alligator." All kids running around room.
2. "Ooh, look. A lizard." "That's mine." "That's his daddy and that's his mommy." "She looks like the baby." "He's got a big long tail." "Kids got on floor and imitated lizard - one kid climbed on top of another kid who said, "get off my tail."
3. "Do other lizards like to walk on other lizards?" "Move so I can see."
4. "Where are all the letters?"
5: "Oh, look. Stop writing and look." "He likes to walk on everything." "He woke him up."

19. Body Parts Film

1. "Ooh, look." "There's a monster, mommy." "a Johnny car: Laughed when boy was broken.
2. Imitated noises - moved arms. "What's that?" "He's making a hole." "Gimme that." (toy truck). "She's eating." very attentive at end. One kid imitated boy eating.
3. One inattentive, one zombie - at finger drilling, "What's that", "Is he eating sand?" End - Laughed.
4. Attentive. "He is making a hole." "A car." "He is eating sand, right."
5. "Is that food they are eating?"

20. Everybody Dance

1. Danced until announcer said "stop" and all kids froze.
2. One kid danced and stopped when announcer said stop.
3. All danced and froze.
4. Turn each other's nose to start up - dance.
5. dance.

21. "D" Commercial

1. "It's the letter 'D'." - "A dog." One kid danced - laughed at dinosaur" "No."
2. "She's a monkey." (2 boys) "dinosaur" One kid laughed at end and then danced.
3. zombie
4. zombie
5. zombie

22. Dance

1. Dance
2. zombie
3. dance
4. dance
5. dance "It stopped again."

23. "D" - Dudley

1. "He ate the 'D'." Laughed.
2. "He ate the letter 'D'."
3. zombie
4. zombie
5. talk to me about school.

24. Muppets - T.V. Repair

1. "Oh, a 'D'." "R" "R" "R"
2. "I'm going to take his nose off." "I got two noses." All kids went up to set and tried to take off muppets' nose. "I want to do the alphabet." "R" "R" "R" "R"
3. inattentive
4. inattentive
5. Laugh. "He is funny."

25. Susan's Song (Dry Bones)

1. danced
2. One kid pointed to __ behind 5 and said triangle another painted to O and said circle. One kid danced, "2 kids fighting."
3. dance
4. imitate. "She can't sing."
5. Clapped, pointed to parts.

26. James Earl Jones - Big Bigger

1. zombie
2. "He ain't got no hands."
3. zombie
4. zombie
5. "Look at that man."

27. Sounds

1. "Who is talking?" "A cow" "Let's get the milk." All kids went up to screen and pretended to milk cow. "Ohh, milk" "milk comes from a cow." "The doggy's going to bite that man." "He can't see." "He's going fast." "A tractor." "He's digging rocks." "He take the rock & put it in the truck." "A choo, choo train." "A watch" "feet walking" "They dead nobody there." "They gonna blow the whole city up."
2. Imitated rooster. "Look at the rooster." "Baa Baa" "This is my baby rooster." "That one's mine." "My cow." "Moo" "My duck" "Eggs" "Milk for the cows." "A dog ." "Gimme my dog." "He getting in the car." "That's not a car. That's a truck." "That's a truck." "A car" Imitated sound of car. "I want to see the alphabet." "Look at the airplane." Imitated sound. Neighed like horse. Whistled with policeman. "I'm blowing my whistle." "I want to see the alphabet." Imitated sound of drill. "A fire." "Water" "Look at the swings." "Water" "I'm gonna go in the water and drown myself." Imitated sea gulls.

3. inattentive

4. inattentive for first half till eggs. "A dog - ruff, ruff" "What makes a car go backwards." "Look an airplane in air." "Train" Imitate tree crashing.

5. "Look trees" "I saw a rooster in my house." "He scares me." "A lamb" "A cow" We saw them yesterday." "ducks" "eggs" "milk" "Maybe that's a man." "That car is going faster." jumped "a bulldozer" "Look" "What is he doing?" "He is brushing that thing." "A plane in the sky." "A horse" Jumped up and galloped. "He is by my house." "Look" "I want a swing." "Water" "It's breezing."

28. Randi - Rope Trick

1. "Look what he's doing." "He's making the ABCs.

2. "I can do it." "He's gonna do some tricks." "He do tricks." Laughed when rope trick was over.

3. Inattentive. "Teacher write your ABC's."

4. Inattentive

5. Zombie

29. Over-Under-Around Film

1. zombie - laughed when H_2O fell on boy's head.

2. "Superman" (beginning shot of boy jumping) Laughed when kid fell down. Imitated kids running & falling. Laughed when H_2O fell on boys head. "I could go up into the sky." "He's going to fall into the water."

3. One zombie, one inattentive.

4. Attentive - "Me, too, I want to go under." Falls when bangs line. "They haven't gone under yet - there they do."

5. zombie

30. Gordon & Rope

1. "What did he get?"

2. zombie

3. inattentive

4. zombie

5. zombie

31. "Wanda the Witch"

1. "A baldy" Laughed

2. "Not again" "I'm going to kill that worm." "The wind's gonna blow it."

3. "A 'W'" "Let's play scared of the witch." "Now, what will she do?"

4. "That is a weasel." "No" "Where is the 'W'"

5. "A 'B'" "That's the castle, not Washington."

32. Jennifer (the artist)

1. "He's a rocket man." (drawing) "What is it?" "A boy or girl."

2. Two boys fighting - girl attentive for first minute - all kids fighting till end.

3. Inattentive

4. Kneel like the boys on the screen, then follow the leader about the room.
5. "Can't she make eyes like mine?" "You don't make it like that." Then becomes inattentive.

33. Muppets "W"

1. "He's got a 'J'."
2. "Look at that." "A letter 'B'."
3. "Those men are funny."
4. "Another 'W'".
5. Inattentive.

34. M.F.A.

1. One kid sang song. "They have a lot of newspapers." "They rob them." "He dropped them." "They going fast." "That's a good guy." (Dropout) "No. They all bad guys." "He's gonna get a dog." "MFA)" "He says woof, woof." "The dog's gonna eat them up." "They gonna run." Imitated man painting letters on door.
2. One kid sang song." "The man's gonna break it." "He broke it." (door) Laughed at opening. "Superman" "It's Clark Kent." "He's gonna say, 'Get out of here'." (teacher) Laughed when guy was hit on the head with newspaper - imitated Dunce & Dropout throwing newspapers into shack. "The 'Alphabet Book'" "A doggy" "He's got 2 tongues." (dog) One kid sang alphabet at end. "He went like this." (imitated painter kissing his fingers - laughed.
3. "It's a 'W' all right." One zombie, one inattentive.
4. Inattentive - One at end stopped to say ABC's as man painting door, laugh at crash.
5. Inattentive until papers in the truck. "What's that?" zombie. "I know what 'B' is." "He is on the papers." "When that man comes, he will break it." "Look" "They run funny."

35. Muppets

1. 2 zombie and 2 inattentive
2. "I want to see the alphavet again." Inattentive.
3. Inattentive
4. "Why does that happen?" Inattentive
5. Zombie.

36. Buddy & Jimmy - Umbrellas

1.
2.
3. One inattentive, one - "Why is he opening all the umbrellas?" "That's not how you do it."
4. Attentive. "It's raining." "He broke the umbrella."
5. "It's raining." "He doesn't want the umbrella." "He is taking it off."

37. Everybody Dance

    1.
    2.
    3. all dance
    4. all dance
    5. danced, laughed at Mr. Hooper's dancing.

38. Bob Drinks (lead to "Alphabet Song")

    1.
    2.
    3. inattentive
    4. inattentive
    5. laugh and dance

39. "Alphabet Song"

    1.
    2.
    3. One inattentive, one sings song.
    4. Both sing
    5. zombie

40. Bob Good-bye

    1.
    2.
    3. "Do we have to go?"
    4. inattentive
    5. zombie

41. Close

    1.
    2.
    3. "I get to turn off the TV."
    4. "Let's go."
    5. "Can't we watch some more."

APPENDIX C

Matrix of Program Segments by Goal Categories

The following two tables show the extent to which the instructional goals of the project are represented in each of the various show elements of shows 1 and 4. The instructional goals (which have been slightly revised since this listing) appear on the left-hand side of the page, and the list of show items appears across the top. The "X's" indicate goal areas which received major emphasis within a given show item.

Perhaps the most interesting fact shown by the tables is that particular show items very frequently deal concurrently with more than one goal, an effect produced insofar as possible by explicit design.

The type of "accounting" presented in these tables, or some variant, thereof, may be used with the programs that go on the air. Such information may be useful in interpreting future research results in the various goal areas.

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SHOW #4

X = MAJOR EMPHASIS
O = MINOR ״

SHOW ITEMS →

2) FILM: SESAME STREET OPENING (1:27)
3) OPENING: BASEBALL (3:14)
4) FILM: 1-2 ERASE MY SHOE (:23)
5) FILM: BALLOON BIT D (:14)
6) FILM: COMMERCIAL W (1:16)
7) GORDON "W" TAG (:14)
8) MUPPET DRAWING PART I (1:29)
9) FILM: JAZZ #3 (:48)
10) MUPPET DRAWING BIT PART II (3:23)
11) FILM: JAZZ #3 (:48)
12) MUPPET DRAWING PART III
13) CARDS ON THE STOOP (1:55)
14) EVERYBODY DANCE (1:51)
COUNTDOWN #1 (:14)
COUNTDOWN #2 (:16)
COUNTDOWN #3 (:12)
15) FILM: COMMERCIAL R (:35)
16) MAGICIAN "R" TRICK (:55)
17) FILM: COMMERCIAL W (1:16)
17A) CAROL BURNETT W TAG (:04)
18) SOAP BUBBLES (:55)
19) FILM: HI-CAM BUBBLE BREAK (1:20)
20) FILM: ROUND (2:51)
21) GORDON LEADS KERMIT BIT (1:03)
22) KERMIT W/MONSTER BIT (1:36)
23) FILM: COMMERCIAL R (:35)
24) STROLLING, -R WORDS (:46)
JUMPROPE (:37)
25) FILM: GAZELLES
26) KERMIT WALKING W BIT (1:37)
28) SUSAN: ALPHABET SONG (1:26)
29) J.E. JONES ALPHABET (1:56)
30) ALPHABET BANNER (1:06)
31) FOLLOW THE LEADER (1:03)
32) FILM: OVER, UNDER, AROUND (4:23)
33) READING STORY: "WHAT KIND OF FEET DOES A BEAR HAVE?" (3:34)
34) BEAR CUB (2:07)
34A) GORDON LEADS HENSON #2 (:05)
34B) FILM: HENSON #2 (1:17)
35) MUPPET COMMERCIAL BIT (1:38)
36) MFA "HOW LUCKY CAN YOU GET?" (7:01)
37) DANCE CONTEST (:35)
38) EVERYBODY DANCE (:50)
39) GORDON LEADS GIBBON FILM (:10)
40) FILM: GIBBON (:55)
43) DANCE CONTEST TAG (:15)

← LS

I-SYMBOLIC REPRESENTATION	A) LETTERS	XXX XXX XXX XXX	X = 11:32	O: —
	B) NUMBERS	X X X X XXX XX XX X	X: 14:41	O: —
	C) GEO. FORMS	X	X = 2:51	O: —
II COGNITIVE PROCESSES	A) PERCEPT. DISCRIM.	o XXXXXXXXX X XXXX X XX XX X X o o X X	X = 24:47	O = 11:32
	B) RELAT. CONCEPTS	X X o XX o	X = 8:19	O = 2:31
	C) CLASSIF.	X X o	X = 4:27	O = 1:17
	D) ORDERING	o o o	X: —	O = 6:01
	E) REASONING + PROB. SOLV.	X o o o X X XXX o X o XX o o o X XX X	X = 23:06	O = 9:39
III PHYSICAL ENVIRON.	A) NATURAL ENVIRON.	o X o o XX o o o o X o XX	X = 6:52	O = 15:42
	B) MAN-MADE ENVIRON.	o o o o o o o X o X o X o o o	X = 8:20	O = 19:53
IV SOCIAL ENVIRON.	A) SOCIAL UNITS	o X o o o X X	X = 13:44	O = 2:51
	B) SOCIAL INTERACTIONS	XX o X X X XXX o XX o o X o X XXX o XXXX X	X = 35:26	O = 7:34

154:07

SHOW #4

X = MAJOR EMPHASIS
O = MINOR "

←LS

SHOW ITEMS →	I. SYMBOLIC REPRESENTATION: A) LETTERS	B) NUMBERS	C) GEO. FORM	II. COGNITIVE PROCESSES: A) PERCEPT. DISCRIM.	B) RELAT. CONCEPTS	C) CLASSIF.	D) ORDERING	E) REASONING + PROB. SOLV.	III. PHYSICAL ENVIRON.: A) NATURAL ENVIRON.	B) MAN-MADE ENVIRON.	IV. SOCIAL ENVIRON.: A) SOCIAL UNITS	B) SOCIAL INTERACTION
2) FILM: SESAME STREET OPENING (1:27)								X		o	o	X
3) OPENING: BASEBALL (3:14)				o				o		o	X	X
4) FILM: 1-2 ERASE MY SHOE (:25)		X		X								o
5) FILM: BALLOON BIT D (:14)	X			X				o				X
6) FILM: COMMERCIAL W (1:16)	X			X				o	o			
7) GORDON "W" TAG (:14)	X			X						o	o	
8) MUPPET DRAWING PART I (1:[illegible]) (:45)				X				X	X			X
9) FILM: JAZZ #3 (1:22)		X		X								
10) MUPPET DRAWING BIT PART II (3:[illegible])				X				X				X
11) FILM: JAZZ #3 (:45)		X		X								
12) MUPPET DRAWING PART III ([illegible])				X								X
13) CARDS ON THE STOOP (1:55)		X			X							X
14) EVERYBODY DANCE (1:51)				X								X
COUNTDOWN #1 (:14)		X						X		o		
COUNTDOWN #2 (:16)		X						X		o		
COUNTDOWN #3 (:12)		X						X		o		
15) FILM: COMMERCIAL R (:55)	X			X				o	o	o	o	o
16) MAGICIAN "R" TRICK (:55)	X			X	X			X				
17) FILM: COMMERCIAL W (1:14)	X			X				o	o			
17A) CAROL BURNETT W TAG (:04)				X								
18) SOAP BUBBLES (:55)								X	X			X
19) FILM: HI-CAM BUBBLE BREAK (1:20)								X	X			X
20) FILM: ROUND (2:51)			X	X		X			o	X		o
21) GORDON LEADS KERMIT BIT ([illegible])												
22) KERMIT W/MONSTER BIT (1:56)	X			X		X						
23) FILM: COMMERCIAL R (:35)	X			X				o	o		o	o
24) STROLLING - R WORDS (1:[illegible])	X									o		
JUMPRENE ([illegible])		X		X								X
25) FILM: GALLBLIES (1:[illegible])		X		X	o			o				o
26) KERMIT WALKING W BIT (1:37)												
28) SUSAN: ALPHABET SONG (1:26)	X			X				o				X
29) J.E. JONES ALPHABET (1:36)	X											
30) ALPHABET BANNER (1:06)	X							X		X		X
31) FOLLOW THE LEADER (1:03)					X		o			o		X
32) FILM: OVER, UNDER, AROUND (4:23)					X		o	X	o	X		X
33) READING STORY: "WHAT KIND OF FEET DOES A BEAR HAVE?" (3:34)				X				X	o	o	X	X
34) BEAR CUB (2:07)									X			o
34A) GORDON LEADS HENSON #2 (:05)		X										
34B) FILM: HENSON #2 (1:17)		X		o		o			o			
35) MUPPET COMMERCIAL BIT (1:38)					o					o		X
36) HFA "HOW LUCKY CAN YOU GET?" (1:01)		X		o				X		o	X	X
37) DANCE CONTEST (:35)							o					X
38) EVERYBODY DANCE (:50)				X								X
39) GORDON LEADS GIBBON FILM (:10)									X			
40) FILM: GIBBON (:55)				X					X			
43) DANCE CONTEST TAG (:15)												X
	X = 11:32 O = —	X = 14:41 O = —	X = 2:51 O = —	X = 24:49 O = 11:32	X = 8:19 O = 2:31	X = 4:27 O = 1:17	X = — O = 6:01	X = 23:06 O = 9:39	X = 6:52 O = 15:42	X = 8:20 O = 19:53	X = 13:44 O = 2:51	X = 35:26 O = 7:34

164:07

SHOW #1

X = MAJOR EMPHASIS
O = MINOR ″

GOALS

SHOW ITEMS ↓	I SYMBOLIC REPRESENTATION			II COGNITIVE PROCESSES					III PHYSICAL ENVIRON.		IV SOCIAL ENVIRON	
	A) LETTERS	B) NUMBERS	C) GEO. FORMS	A) PERCEPT. DISCRIM.	B) RELAT. CONCEPTS	C) CLASSIF.	D) ORDERING	E) REASONING & PROB. SOLV.	A) NATURAL ENVIRON.	B) MAN-MADE ENVIRON.	A) SOCIAL UNITS	B) SOCIAL INTERACTION
2. FILM: OPENING SESAME STREET (1:32)								X		O	O	X
3. OPENING-WRITING IN CEMENT (1:15)	X	X								X	X	X
4. FILM: ALPHABET D (:22)	X											
5. GORDON CHALK BIT (:48)								X		O		
6. LMB - YOU GOTTA LEARN (1:3				X				X			X	O
7. SUSAN LEADS COMMERCIAL D [illegible]												
8. COMMERCIAL D (1:05)	X			X								
9. MUPPET TAG (:05)	X							X				
10. COMMERCIAL - D (1:01)	X			X								
11. MUPPET TAG ([illegible])	X							X				O
12. COMMERCIAL - D (1:01)	X			X								
13. MUPPET TAG (:29)	X											X
14. MAGICIAN DISAPPEARING "D" (:37)	X				X			X				
15. SUPERMAN - D BIT (:16)	X											X
16. MAGICIAN NEWSPAPER D (1:15)	X							X				
17. FILM: ALPHABET SONG (:43)	X			X	X			X				X
18. LMB - ALPHABET SONG (2:02)	X			X				O				O
19. GORDON WORKS (:37)								O		X		O
20. FILM: BABY REINDEER (1:41)									X		X	
21. GORDON TAG (:34)	X			X								O
22. NAIL SKETCH (3:52)					X	O		X	O	X		X
23. BOOK CASE TAG (:10)	X			X								
24. FILM: ALPHABIT D (:22)	X											
25. GORDON LEADS EVERYBODY DANCE (:18)												
26. EVERYBODY DANCE (1:26)				X								X
27. GORDON: D-DANCE (:13)	X			X								
28. FILM: BALLOON BIT - D (:14)	X			X				O				X
28A. READING STORY: "WHERE THE WILD THINGS ARE" (4:37)				X	X	O				O	X	X
29. "IF YOUR HAPPY AND YOU KNOW IT" (1:50)				X							X	X
30. SUSAN LEADS ROUND (1:00)			X	X		X		X	O	X		O
31. FILM: ROUND (2:51)			X	X		X			O	X		
31A. SUSAN LEADS TRIANGLE & SQUARE (:47)		O	X	X		X		O		O		X
31B. FILM: TRIANGLE & SQUARE (3:22)		X	X			X					X	X
32. GORDON CEMENT CHECK (:40)	X									O		
33. FILM: JAZZ #2 (:48)		X		X								
34. BOB COUNTS (:15)		X		X								X
35. FILM: HENSON #2 (1:17)		X		O		O			O			
36. SUSAN COUNTS (:14)		X							X			X
37. FILM: ANIMAL 2'S (:35)		X							X			
38. FILM: JAZZ #2 (:48)		X		X								
39. MUPPET 2 - NOSE BIT (:28)		X		X								X
40. FILM: HENSON #2 (1:17)		X		O		O			O			
40A. FILM: COUNTDOWN #2 (:18)		X								O		
40B. BURNETT COUNTDOWN TAG (:03)								O				
41. NEWSPAPER BIT (2:05)				X						X	X	X
42. MUPPETS + BATMAN (:41)					X					O		X
43. MFA - READ ALL ABOUT IT (6:01)	X	O		O	O			X	O	O	X	X
44. BABY RACCOON (3:00)					O			O	X			O
	X=16:35	X=10:37	X=8:00	X=25:41	X=10:30	X=8:00		X=17:33	X=5:30	X=11:40	X=22:24	X=30:01
	O=–	O=6:45	O=—	O=8:35	O=9:01	O=11:0[illegible]		O=6:[illegible]	O=16:[illegible]	O=15:[illegible]	O=1:[illegible]	O=8:[illegible]

SHOW #1

X = MAJOR EMPHASIS
O = MINOR "

SHOW ITEMS →	GOALS: I SYMBOLIC REPRESENTATION: A) LETTERS	B) NUMBERS	C) GEO. FORMS	II COGNITIVE PROCESSES: A) PERCEPT. DISCRIM.	B) RELAT. CONCEPTS	C) CLASSIF.	D) ORDERING	E) REASONING & PROB. SOLV.	III PHYSICAL ENVIRON.: A) NATURAL ENVIRON.	B) MAN-MADE ENVIRON.	IV SOCIAL ENVIRON.: A) SOCIAL UNITS	B) SOCIAL INTERACTIONS
2. FILM: OPENING SESAME STREET (1:34)								X		o	o	X
3. OPENING-WRITING IN CEMENT (1:1[illegible])	X	X								X	X	X
4. FILM: ALPHABET D (:22)	X											
5. GORDON CHALK BIT (:4[illegible])								X		o		
6. LMB-YOU GOTTA LEARN ([illegible])				X				X			X	o
7. SUSAN LEADS COMMERCIAL D ([illegible])												
8. COMMERCIAL D ([illegible])	X			X								
9. MUPPET TAG (:03)	X							X				
10. COMMERCIAL - D (1:01)	X			X								
11. MUPPET TAG (:06)	X							X				o
12. COMMERCIAL - D (1:01)	X			X								
13. MUPPET TAG (:24)	X											X
14. MAGICIAN DISAPPEARING "D" (:37)	X				X			X				
15. SUPERMAN - D BIT (:16)	X											X
16. MAGICIAN NEWSPAPER D (1:18)	X							X				
17. FILM: ALPHABET SONG (:43)	X			X	X			X				X
18. LMB - ALPHABET SONG (2:02)	X			X				o				o
19. GORDON WORMS (:37)								o		X		o
20. FILM: BABY REINDEER (1:41)									X		X	
21. GORDON TAG (:36)	X			X								o
22. NAIL SKETCH (3:52)					X	o		X	o	X		X
23. BOOK CASE TAG (:10)	X			X								
24. FILM: ALPHABIT D (:22)	X											
25. GORDON LEADS EVERYBODY DANCE (:19)				X								
26. EVERYBODY DANCE (1:20)				X								X
27. GORDON: D-DANCE (:13)	X			X								
28. FILM: BALLOON BIT - D (:14)	X			X				o				X
29A. READING STORY: "WHERE THE WILD THINGS ARE" (1:37)				X	X	o				o	X	X
30. "IF YOUR HAPPY AND YOU KNOW IT" (1:50)				X							X	X
3[illegible]. SUSAN LEADS ROUND (1:00)			X	X		X		X	o	X		o
31. FILM: ROUND (2:51)			X	X		X			o	X		
31A. SUSAN LEADS TRIANGLE & SQUARE (:47)		o	X	X		X		o		o		X
31B. FILM: TRIANGLE & SQUARE (3:22)		X	X			X					X	X
32. GORDON CEMENT CHECK (:40)	X									o		
33. FILM: JAZZ #2 (:48)		X		X								
34. BOB COUNTS (:15)		X		X								X
35. FILM: HENSON #2 (1:17)		X		o		o			o			
36. SUSAN COUNTS (:14)		X							X			X
37. FILM: ANIMAL 2's (:35)		X							X			
38. FILM: JAZZ #2 (:48)		X		X								
39. MUPPET 2 - NOSE BIT (:28)		X		X								X
40. FILM: HENSON #2 (1:17)		X		o		o			o			
40A. FILM: COUNTDOWN #2 (:18)		X								o		
40B. BURNETT COUNTDOWN TAG (:03)								o				
41. NEWSPAPER BIT (2:05)				X						X	X	X
42. MUPPETS & BATMAN (:41)					X					o		X
43. MFA - READ ALL ABOUT IT (6:01)	X	o		o	o			X	o	o	X	X
44. BABY RACCOON (3:00)					o			o	X			o
	X=16:35	X=10:37	X=8:00	X=25:41	X=10:30	X=8:00		X=17:33	X=5:30	X=11:40	X=22:24	X=30:01
	0=--	0=6:4[illegible]	0: ——	0=8:35	0=9:01	0=11:05		0=6:[illegible]	0=16:[illegible]	0=15:[illegible]	0=1:[illegible]	0=8:[illegible]